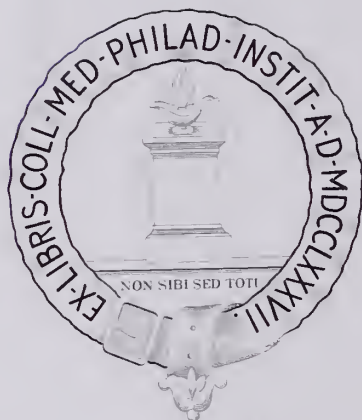


277198



Class Journal to

LIBRARY GENERAL FUNDS

Luther S. Bent
Binding Fund
William T. Carter
Catalogue Endowment
Louis A. Duhring
W. V. & J. M. Keating
Henry Leffman

Library Endowment
Morris Longstreth
Phila. Med. Society
Charles H. Vinton
Douglas Stockton Warren
J. William White
Caspar Wistar

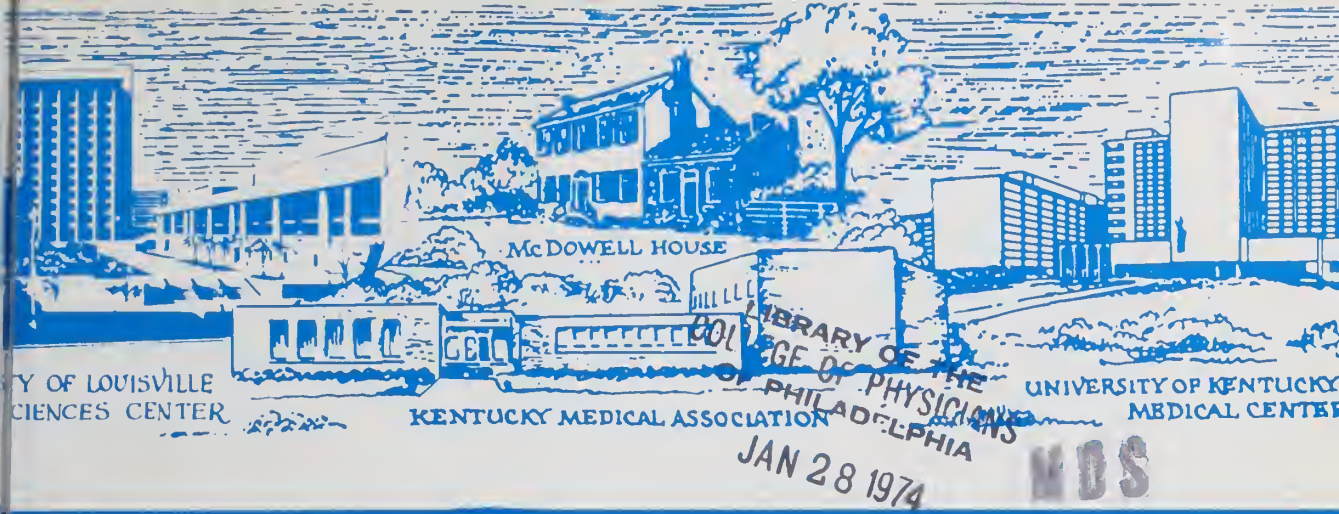
LIBRARY OF THE
COLLEGE OF PHYSICIANS
OF PHILADELPHIA





Digitized by the Internet Archive
in 2016

<https://archive.org/details/journalofkentuck7219kent>



The Journal of The KENTUCKY Medical Association

Diagnosis of Renovascular Hypertension in a Young Adult

Theodore Kotchen, M.D., David Preston, M.D., and Calvin B. Ernst, M.D. 25

Abruptio Placenta

Abe Fosson, M.D. 29

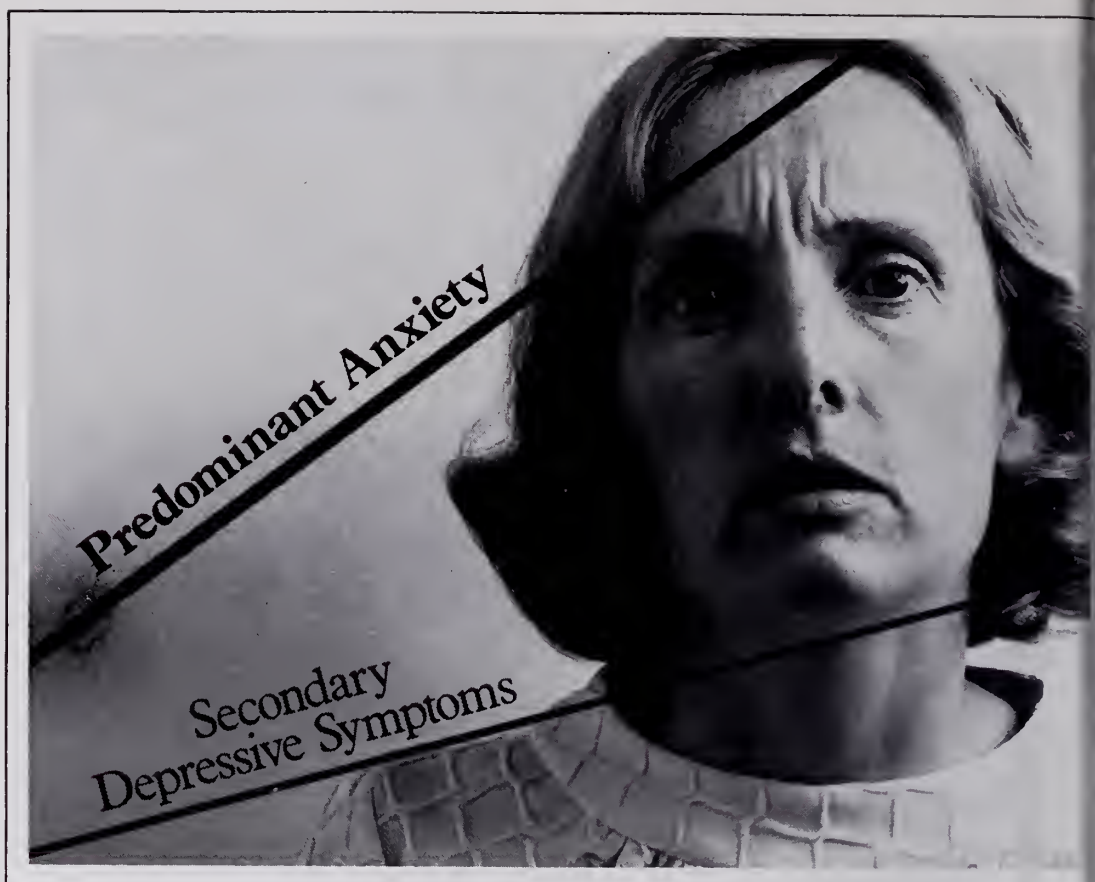
Postoperative Instructions for Hand Surgery

Morton Kasdan, M.D. and Harold Kleinert, M.D. 32

KMA Abortion Guidelines

35

Complete Contents on Page 5



This psychoneurotic often responds

Before prescribing, please consult complete product information, a summary of which follows:

Indications: Tension and anxiety states; somatic complaints which are concomitants of emotional factors; psychoneurotic states manifested by tension, anxiety, apprehension, fatigue, depressive symptoms or agitation; symptomatic relief of acute agitation, tremor, delirium tremens and hallucinosis due to acute alcohol withdrawal; adjunctively in skeletal muscle spasm due to reflex spasm to local pathology, spasticity caused by upper motor neuron disorders, athetosis, stiff-man syndrome, convulsive dis-

orders (not for sole therapy).

Contraindicated: Known hypersensitivity to the drug. Children under 6 months of age. Acute narrow angle glaucoma; may be used in patients with open angle glaucoma who are receiving appropriate therapy.

Warnings: Not of value in psychotic patients. Caution against hazardous occupations requiring complete mental alertness. When used adjunctively in convulsive disorders, possibility of increase in frequency and/or severity of grand mal seizures may require increased dosage of standard anticonvulsant

medication; abrupt withdrawal may be associated with temporary increase in frequency and/or severity of seizures. Advise against simultaneous ingestion of alcohol and other CNS depressants. Withdrawal symptoms (similar to those with barbiturates and alcohol) have occurred following abrupt discontinuance (convulsions, tremor, abdominal and muscle cramps, vomiting and sweating). Keep addiction-prone individuals under careful surveillance because of their predisposition to habituation and dependence. In pregnancy, lactation or women of childbearing age, weigh potential benefit against possible hazard.

When you determine that the depressive symptoms are associated with or secondary to predominant anxiety in the psychoneurotic patient, consider Valium (diazepam) in addition to reassurance and counseling, for the psychotherapeutic support it provides. As anxiety is relieved, the depressive symptoms are also often relieved or reduced.

The beneficial effect of Valium is usually pronounced and rapid. Improvement generally becomes evident within a few days, although

some patients may require a longer period. Moreover, Valium (diazepam) is generally well tolerated. Side effects most commonly reported are drowsiness, ataxia and fatigue. Caution your patients against engaging in hazardous occupations or driving.

Frequently, the patient's symptoms are greatly intensified at bedtime. In such situations, Valium offers an additional advantage: adding an *h.s.* dose to the *b.i.d.* or *t.i.d.* schedule can relieve the anxiety and thus may encourage a more restful night's sleep.

symptom complex

Valium[®] (diazepam)

Precautions: If combined with psychotropics or anticonvulsants, consider carefully pharmacology of agents employed; drugs such as phenothiazines, narcotics, barbiturates, MAO inhibitors and antidepressants may potentiate action. Usual precautions apply in patients severely depressed, or with latent depression, or with suicidal tendencies. Observe usual precautions in impaired renal

or hepatic function. Limit dosage to smallest effective amount in elderly and debilitated to preclude ataxia or oversedation.

Side Effects: Drowsiness, confusion, diplopia, hypotension, changes in libido, nausea, fatigue, depression, dysarthria, jaundice, skin rash, ataxia, constipation, headache, incontinence, changes in salivation, slurred speech, tremor, vertigo, urinary retention, blurred

vision. Paradoxical reactions such as acute hyperexcited states, anxiety, hallucinations, increased muscle spasticity, insomnia, rage, sleep disturbances, stimulation have been reported; should these occur, discontinue drug. Isolated reports of neutropenia, jaundice; periodic blood counts and liver function tests advisable during long-term therapy.



Roche Laboratories
Division of Hoffmann-La Roche Inc.
Nutley, N.J. 07110

Valium[®] 2-mg, 5-mg, 10-mg tablets
(diazepam)

277198

JUN 14 1976



Placidyl® (ETHCHLORVYNOL)

Brief Summary

Indications—Placidyl (ethchlorvynol) is indicated as short-term hypnotic therapy in the management of insomnia.

Contraindications—Drug hypersensitivity and porphyria.

Warnings—Not recommended during the first and second trimester of pregnancy. Caution patients of possible combined exaggerated effects with alcohol, barbiturates, tranquilizers or other CNS depressants. Exaggerated effects might result in blurring of vision, paralysis of accommodation and profound hypnosis. Caution patients concerning driving a motor vehicle, operating machinery, or other hazardous operations requiring alertness after taking the drug. ADMINISTER WITH CAUTION TO PATIENTS WITH SUICIDAL TENDENCIES AND DO NOT PRESCRIBE LARGE QUANTITIES OF THE DRUG. Adjustment of the dosage of oral anticoagulants might be necessary when beginning ethchlorvynol therapy, during therapy, or after stopping therapy. This drug is not recommended for use in children. PLACIDYL HAS THE POTENTIAL FOR THE DEVELOPMENT OF PSYCHOLOGICAL AND PHYSICAL DEPENDENCE. INSTANCES OF SEVERE WITHDRAWAL SYMPTOMS, INCLUDING CONVULSIONS AND DELIRIUM CLINICALLY SIMILAR TO THOSE SEEN WITH BARBITURATES, HAVE BEEN REPORTED IN PATIENTS TAKING REGULAR DOSES AS LOW AS 1000 MG. PER DAY OVER A PERIOD OF TIME WHEN THE DRUG WAS SUDDENLY DISCONTINUED. PROLONGED ADMINISTRATION OF THE DRUG IS NOT RECOMMENDED. Addiction-prone patients or those who are likely to increase dosages of the drug on their own initiative should be observed for evidence of signs or symptoms which may indicate possible early withdrawal or abstinence symptoms. Signs and symptoms associated with withdrawal and abstinence include unusual anxiety, tremor, ataxia, slurring of speech, memory loss, perceptual distortions, irritability, agitation and delirium. Other less well defined signs and symptoms, not necessarily due to withdrawal and abstinence, may include anorexia, nausea or vomiting, weakness, dizziness, sweating, muscle twitching and weight loss. Abrupt discontinuance of Placidyl following prolonged overdosage may result in convulsions and delirium.

Precautions—Toxic amblyopia has been reported with long-term continuous use of ethchlorvynol. Permanent visual defects have been observed, although amblyopia has improved after discontinuation of the drug. Drug dosage should be limited for elderly and debilitated patients to the smallest effective amount. If pain is present, this drug should only be given if insomnia persists after pain is controlled with analgesics. Caution is advised in prescribing the drug for patients who are being treated with either MAO inhibitors or antidepressants. Transient delirium has been reported with the combination of Placidyl and amitriptyline. Drug dosage should be reduced if prescribed for patients receiving MAO inhibitors or antidepressants. Caution should be exercised in patients with impaired hepatic or renal function. Patients who respond unpredictably to barbiturates or alcohol, or who exhibit excitement and release of inhibition in association with such agents, may also react in this way to Placidyl. Rarely, patients may exhibit symptoms suggestive of an unusual susceptibility to the drug; such as prolonged hypnosis, profound muscular weakness, excitement, hysteria, or syncope without marked hypotension. Transient giddiness or ataxia may occur.

Adverse Reactions—Hypotension, nausea or vomiting, gastric upset, aftertaste, blurring of vision, dizziness, facial numbness, and allergic reaction typified by urticaria have been reported following Placidyl administration. Mild "hangover" and symptoms of mild excitation have occurred in some patients. There have been rare reports of cholestatic jaundice occurring in patients taking ethchlorvynol. A few cases of thrombocytopenia have been reported in patients receiving ethchlorvynol. 306433

Give us his nights.

Prescribe Placidyl. Chances are, we'll give him a good night's sleep.

Insomnia often accompanies a cardiovascular episode. How many nights does he lie awake, awaiting exactly what he fears most . . . another stroke, another heart attack? He doesn't need fear. He needs sleep.

When sleep is synonymous with therapy, remember . . . Placidyl is synonymous with sleep. It has been for over 17 years.

If time is the criterion to inspire your confidence . . . you can rest assured with Placidyl.

Prescribed by physicians for over 17 years.

Placidyl®



(ETHCHLORVYNOL CAPSULES, 500 or 750 mg.)



Journal of The KENTUCKY Medical Association

EDITOR
Walter I. Hume, Jr., M.D.

ASSOCIATE EDITOR
Henry B. Asman, M.D.

ASSISTANT EDITOR
A. Evon Overstreet, M.D.

EXECUTIVE EDITOR
Robert G. Cox

MANAGING EDITOR
Jerry E. Mohoney

ASSISTANT MANAGING EDITOR
Diane Maxey

DEPARTMENTAL EDITORS
Charles C. Smith, Jr., M.D., Scientific
John W. Greene, Jr., M.D., Maternal
Mortality

**BOARD OF CONSULTANTS
ON SCIENTIFIC ARTICLES**

Term Expires July 1, 1976
Gehrig M. Robinson, M.D.
Mark S. Sexter, M.D.
Thomas E. Booth, M.D.
Patrick L. Jasper, M.D.
Oscar W. Thompson, M.D.
Stephen C. Schindler, M.D.
Van R. Jenkins, M.D.
John W. Miller, M.D.

Term Expires July 1, 1975
Robert E. Arnold, M.D.
Robert A. Hall, M.D.
Chrismon S. Jackson, Jr., M.D.
Lofayette G. Owen, M.D.
Anne Richmon, M.D.
Ruel T. Routh, M.D.
Frank G. Simon, M.D.
Leslie Von Nostrand, M.D.

Term Expires July 1, 1974
David S. Nightingale, M.D.
Dennis B. Penn, M.D.
Andrieus J. Dzenitis, M.D.
Joseph G. Whelon, Jr., M.D.
Conrad H. Jones, M.D.
Peter C. Compbell, Jr., M.D.
William E. Jackson, M.D.
Edgar W. Waltrip, M.D.

Published at 3532 Ephraim McDowell Drive,
Louisville, Ky. 40205
Phone (Area Code 502) 452-6324

Subscription \$10 (Members \$5)
Single Copy \$1

Second-class postage paid at Louisville, Kentucky.
Acceptance for mailing at special rates postage
provided in Section 1103, act of Oct. 3, 1917,
authorized May 25, 1920.

Contents

SCIENTIFIC ARTICLES

Diagnosis of Renovascular Hypertension in a Young Adult
*Theodore A. Kotchen, M.D., David Preston, M.D.
and Calvin B. Ernst, M.D.*25

Abruptio Placenta
Abe R. Fosson, M.D.29

Postoperative Instructions for Hand Surgery
Morton Kasdan, M.D. and Harold Kleinert, M.D. ..32

Necrotizing Enterocolitis (Grand Rounds)
*H. Fallazadeh, M.D., B. Schoo, M.D. and B.
Andrews, M.D.*33

SPECIAL ARTICLE

KMA Abortion Guidelines and Resolution35

EDITORIALS

Gastrointestinal Endoscopy37

Diagnosis of Renovascular Hypertension in a Young Adult38

SPECIAL FEATURE

KMA Organizational Structure Chart18

ORGANIZATION

KEMPAC Re-Elects Dr. Cooper, Announces 1973-74 Board 40

Ky. Licensure Board Submits First Annual Report 40

KMA To Co-Sponsor National Conference on Mental Health 41

AMA House Hears Dr. Roth, Awards Dr. Bowen 41

Ky. Senate and House Rosters Listed for 1974 Assembly 44

REGULAR FEATURES

President's Page 7 **Postgraduate Opportunities** .. 10

A Committee Reports 8 **Delegates' Deliberations** 11

Maternal Mortality 15

KENTUCKY MEDICAL ASSOCIATION

BOARD OF TRUSTEES — 1973-1974

Officers

President	FRED C. RAINEY 912 Woodland Dr., Elizabethtown 42701 (502) 765-4147 .1974
President-Elect	HOYT D. GARDNER 508 Watterson City Bldg., Louisville 40218 (502) 452-2684 .1974
Immediate Past President	LEE C. HESS 7211 U. S. 42, Florence 41042 (606) 371-1153 .....1974
Vice-President	GABE A. PAYNE 1610 S. Main St., Hopkinsville 42240 (502) 885-8445 ....1974
Secretary	S. RANDOLPH SCHEEN 1163 Medical Arts Bldg., Louisville 40217 (502) 451-1661 .1975
Treasurer	KEITH P. SMITH Medical Arts Bldg., Corbin 40701 (606) 528-3211 .....1975
Speaker, House of Delegates ...	RICHARD F. GREATHOUSE 5 Triangle Center, Louisville 40220 (502) 458-3219 .....1974
Vice-Speaker	CARL COOPER, JR. Bedford 40006 (502) 255-3282 .....1974
Chairman, Board of Trustees ...	BALLARD W. CASSADY Pikeville Medical Bldg., Pikeville 41501 (606) 437-6698 ..1974
Vice-Chairman	PAUL J. PARKS 1109 State St., Bowling Green 42101 (502) 781-5111 ....1974

Delegates to the A.M.A.

J. THOS. GIANNINI, Suite 3E, Suburban Medical Plaza, Louisville (502) 897-2555 Jan. 1973-Dec. 1974
CHAS. G. BRYANT, (Alt.) 3357 Medical Arts Bldg., Louisville (502) 452-1558 Jan. 1973-Dec. 1974
JOHN C. QUERTERMOUS, 205 S. 8th St., Murray (502) 753-5161 Jan. 1974-Dec. 1975
WILLIAM W. HALL, (Alt.) Mayfair Square, Owensboro (502) 684-6255 ... Jan. 1974-Dec. 1975
DAVID B. STEVENS, 333 Waller Ave., Lexington (606) 254-8008 Jan. 1974-Dec. 1975
THOMAS L. HEAVERN, (Alt.) 2435 Alexandria, Highland Hgts. (606) 441-7600 Jan. 1974-Dec. 1975

Trustees

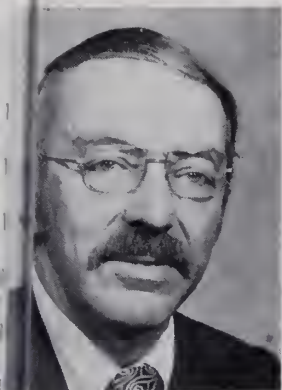
1st	W. EUGENE SLOAN, 2320 Broadway, Paducah 42001 (502) 443-4581 .....1974
2nd	CHARLES C. KISSINGER, Atkinson Park, Henderson 42420 (502) 826-6271 .....1976
3rd	RALPH L. CASH, 210 West Main St., Princeton 42445 (502) 365-2037 .....1974
4th	W. BRUCE HAMILTON, 4th & Buckman, Shepherdsville 40165 (502) 543-6362 ...1974
5th	EDWARD N. MAXWELL, St. Joseph Infirmary, Louisville 40217 (502) 636-7461 ..1975
6th	PAUL J. PARKS, 1109 State St., Bowling Green 42101 (502) 781-5111 .....1975
7th	JOHN P. STEWART, 220 Steele St., Frankfort 40601 (502) 227-4718 .....1976
8th	CARL J. BRUEGGEMANN, 325 W. 19th St., Covington 41014 (606) 291-4768 ..1975
9th	JAMES L. FERRELL, Bourbon Medical Ctr., Paris 40361 (606) 987-2200 .....1976
10th	DAVID A. HULL, 2368 Nicholasville Rd., Lexington 40503 (606) 277-5711 ....1976
11th	R. EUGENE BOWLING, 527 W. Main, Richmond 40475 (606) 623-7754 .....1975
12th	ROBERT N. McLEOD, JR., 500 Bourne Ave., Somerset 42501 (606) 678-8155 ....1974
13th	J. WESLEY JOHNSON, 2301 Lexington Ave., Ashland 41101 (606) 325-1151 ....1976
14th	BALLARD W. CASSADY, Pikeville Med. Bldg., Pikeville 41501 (606) 437-6698 ..1974
15th	HAROLD L. BUSHEY, 406 Knox St., Box 770, Barbourville 40906 (606) 546-3024 1975

BUYERS GUIDE

JANUARY BUYERS GUIDE FOR JOURNAL OF KMA 1974

Abbott Laboratories	4	McNeil Laboratories	4
Burroughs Wellcome Company	19	Medical Protective Company	4
Flint Laboratories	12-13	Pharmaceutical Manufacturers Association	22-2
General Electric Company	10	Poythress, William P., Company	1
General Leasing Corporation	11	Rache Laboratories	2-3, 20-21, 46-47, 50-52, 53-5
Lilly, Eli & Company	24	Searle Laboratories	42-4
Marion Laboratories, Inc.	16-17	Southern Optical Company	4

MESSAGE FROM THE PRESIDENT



An Old Syndrome

THE greatest hazard of a physician's professional life is work pressure. The desire to be scientifically current and accurate must constantly vie with the workload. From the start of medical school to retirement there seems to be always a scarcity of hours to fulfill a hunger for better ways to cure disease. Add to this the teaching or practice load and its pressing demands and we have an inevitable frustration syndrome.

It is this frustration which basically underlies many of medicine's current problems. The inbred and ingrained American drive is to succeed, whatever the field of endeavor. Physicians are typically American in this respect and have built a medical system second to none. To remain number one only increases frustration as they seek cures for unconquered diseases. Added to this basic pressure to succeed are other problems, such as the demanding and unreasonable patient, or the governmental bureaucrats setting up "superior plans" to run medicine, or just the everyday financial and personal frustrations which every individual must tackle. Many times these demands and situations overwhelm cool thought and careful planning.

As individuals trained to understand the very intricacies of people's minds and bodies, shouldn't we strive to understand and to heal ourselves before lashing out around us? The statement "physician heal thyself" is a provocative statement, but I think it is humanly impossible. We can give the medicines and do the cutting and suturing but God does the healing.

Some years ago, the late Doctor Elmer Hess, while AMA President, told a group of physicians at a meeting in St. Louis that "doctors have quit taking God into the sick room with them." We have dangerously defaulted on the only Infallible Partner we will ever have. Collectively, we may suffer for what we do as individuals. When, in our ego, we play God and claim to be healers, we lose our greatest source of power—the antidote to our frustration.

In our desire to fulfill a partnership with Him, could we as physicians breathe a daily prayer such as this: "Almighty Father, give me the desire and power to change all of the things that need changing and the composure to accept what I cannot change. God, help me to remember that power comes through me and not from me. Amen." If we could sincerely and honestly live by such a philosophy, I believe that the frustration syndrome in physicians would die and be replaced by power and security in their relations with patients and with the social system around them.

GABE A. PAYNE, M.D.
KMA VICE-PRESIDENT

This is the first in a series of articles written at the request of KMA President Fred C. Rainey, M.D.

A Committee Reports

The Private Physician's Role as a Part-Time Occupational Physician*

CHARLES E. HORNADAY, M.D., CHAIRMAN**

KMA COMMITTEE ON OCCUPATIONAL HEALTH

HONORABLE Governor Ford, panelists, ladies and gentlemen, this brief discussion will be concerned with emerging concepts regarding the role of the occupational physician, within the context of the private practitioner who provides some degree of health service to industry, on a part-time basis.

In the Commonwealth of Kentucky, only a dozen or so industries, employing 10% of the total work force enjoy the luxury of a full-time, fully staffed occupational health organization, consisting of physicians, sufficient nurses, and a hygienist on the premises or in a consulting relationship. The remaining industries are divided about equally between part-time staffing or no health resources whatsoever. A recent survey of Kentucky Medical Association members indicated that approximately 400 of a total of 2,800 physicians, located in seven urbanized counties, function in some capacity related to occupational health. Further study indicates that most of this health care is provided in offices, clinics, or hospital emergency rooms, and is triggered by the occurrence of an injury or work-related illness. Very few man hours are devoted to in-plant, preventive health care.

The Occupational Safety and Health Act of 1970, which has been essentially incorporated in its entirety as the Kentucky Occupational Safety and Health Act, specifically states, "The employer **SHALL** ensure the ready availability of medical personnel for advice and consultation on matters of plant health." **SHALL** is the equivalent of **MUST** in the Act.

"Plant Health" is a broad, all inclusive term. When broken down, it should include these major elements:

1. Health Examination and Evaluation

2. Treatment of Occupational Injuries and Illnesses
3. Health Counseling
4. Workplace Environment Evaluation
5. Occupational Health Management

While these elements are basic to the position requirement of a full-time occupational physician, they can and should be available to an employer on a part-time basis. The task will be much easier, less expensive, and effectively coordinated if a full-time nurse can be employed in the industrial organization.

I shall now develop briefly the elements, or perhaps expectations, to be realized where an employer-physician relationship is established.

Basic to an occupational health program is an adequate physical examination which is relevant to the type of employment. This is most important to insure job placement consistent with physical capabilities, as protection against spurious compensation claims, and for employee protection in potentially hazardous exposure situations. It is frequently advisable to establish periodic employee re-examination policies. As the Labor Health regulations evolve, re-examination programs will be mandatory in certain industrial processes in order to insure adequate employee health protection. Many industries consider it valuable to provide periodic physical examinations for key personnel.

While minor plant injuries and possibly carefully identified personal illness or injury cases may be treated by plant dispensary personnel, the fundamentals and scope of such treatment must be outlined as "standing orders", and be indirectly, at least, under physician supervision. The physician should be readily available for treatment of more serious plant injuries and all cases of occupational illness. A primary care physician would be expected to utilize referrals where indicated, and to provide continuity of care when away from his office to the

*Presented during the Sixth Annual Governor's Conference on Occupational Health, Louisville, October 16, 1973.

**Doctor Hornaday died on December 14, 1973, while this article was in the process of publication.

me degree expected by his private practice patients.

Health counseling is a relatively new concern occupational health. The well informed employee frequently relates his personal health problems to his job environment and will require professional guidance, which may vary from knowledgeable reassurance or job transfer to actual clinical investigation.

Health counseling is frequently involved in the administration of company benefit programs. When alcohol, drug, or emotional problems are suspected, a physician should determine the causative factors and initiate appropriate measures, such as in-plant treatment, referral to outside physicians or agencies, or job relocation.

The initial impetus of OSHA has been primarily "Nuts and Bolts" Safety. I believe the immediate near future will see much greater emphasis on the effects of the occupational environment on the individual worker. By the end of 1973, some 25 Criteria Documents, which are detailed studies proposing changes or additions to the workplace health standards, will have been submitted to the Department of Labor. Only the Heat Stress and Noise Documents deal with the physical environment. The remainder are concerned with potentially toxic chemical exposures. To date, only the Asbestos and Emergency Carcinogen Standards have been adopted. If one can draw a conclusion from these documents, it is apparent that data accumulated by the hygienist will require evaluation by a physician as to human significance. Most of these documents specifically set arbitrary limits, beyond which "biological monitoring" and comprehensive physical examinations, with indicated laboratory testing, must be performed on the exposed population. Except for very general guidelines, a physician must establish the type of examination necessary in relation to the exposure, the interpretation of results, and subsequent treatment where indicated. Information evaluation may also consist of detailed case studies, and actually involve research projects into causes and prevention of occupational illness.

Finally, this physician should be a part of the management team to the extent that he can propose and implement programs necessary to comply with OSHA and the social obligations

of an employer to provide a safe and healthy place of employment. To be effective, the physician should spend *some* time on a regular basis in the industrial location in order to be familiar with types of work and potential health problems. He should meet periodically with management to review health performance data and requisite programs. He must have access to information concerning the rapidly changing regulations and proposals in the occupational health field.

I have discussed briefly the major elements of Occupational Medicine today. I believe a part-time physician can supply professional leadership and service in all of these areas if properly selected and effectively utilized.

It has been estimated that at least three physician hours a week per 200 employees would provide minimal professional services. It is desirable for at least a portion, if not all, of this time be "on location" so to speak. Of course, emergency care must be provided over and above this minimum when injuries occur. The family practitioner, general surgeon, or internist is most generally suited to the role of occupational physician, and can provide a sound basic program of health services tailored to the specific industrial needs. Frequently an older physician who wishes to reduce his private practice load will prove very satisfactory provided he has maintained a program of continuing medical education.

Where physician recruitment poses a problem, I might suggest that, in addition to the usual monetary consideration, the underwriting of an annual continuing education seminar, attendance at corporate health meetings, or even adding company benefits to the "package" would be added inducements.

Cost-wise, an acceptable occupational health program of the type discussed will vary from \$30 to \$60 per employee a year, depending on the size and type of industry. However, when cost is compared to savings realized in:

- Insurance benefits and Workman's Compensation
 - Increased production efficiency
 - Capability to maintain a status of compliance with the multitude of emerging health regulations
 - Generally improved employee relations
- such expenditures may be readily justified in every sense of the word.



POSTGRADUATE OPPORTUNITIES



IN KENTUCKY

JANUARY

- 14 "The Killers" series on "Pulmonary Disease," KET television stations, 8 p.m., EST
- 16-17 Northern Kentucky Seminar, Kentucky Academy of Family Physicians, Ft. Mitchell
- 19 Symposium on Operating Room Hazards, University of Louisville School of Medicine, Health Sciences Auditorium; Registration: \$20, physicians. For further information contact: Gerald Swim, Continuing Education, University of Louisville.
- 25-26 Workshop on Gastrointestinal Endoscopy, University of Kentucky College of Medicine, Continuing Education Center; Registration: \$150. For further information contact: Ronald D. Hamilton, M.D., Continuing Education, University of Kentucky.

FEBRUARY

- 11 "The Killers" series on "Trauma: It's An Emergency," KET television stations, 8 p.m., EST

MARCH

- 11 "The Killers" series on "Cancer: The Cell That Won't Die," KET television stations, 8 p.m., EST
- 20-21 Symposium on Cardiovascular Diseases, Heart Association of Louisville and Jefferson County, Stouffer's Inn, Louisville

APRIL

- 4 Annual Spring Conference, "Recent Advances in the Management of Pulmonary Diseases," Lexington Clinic and Lexington Clinic Foundation, Lexington.

IN SURROUNDING STATES

JANUARY

- 30-31 Postgraduate course, "Medical Progress for the Family Physician," Cleveland Clinic Foundation, Cleveland.

FEBRUARY

- 1-3 AMA Council on Medical Education Congress, Palmer House, Chicago

FEBRUARY

- 6-7 Postgraduate course, "Current Topics in Blood Banking," Cleveland Clinic Foundation, Cleveland.

MARCH

- 9-10 Annual Felson Lecture Series, University of Cincinnati College of Medicine, Cincinnati.

APRIL

- 1-3 AMA Third National Congress on the Quality of Life, Marriott Motor Hotel, Chicago.
- 5-6 AMA-Southeast Regional Mental Health Conference, Marriott Hotel, Atlanta.

INDUSTRIAL PHYSICIAN

Career opportunity offering professionally rewarding work . . . and the opportunity to live in an invigorating, and growing community.

General Electric seeks a full-time physician for our modern, well-equipped medical department at Appliance Park in Louisville, Kentucky. Serving 22,000 professional and production employees, the department's range of activities is correspondingly wide and challenging. You will have the full support of an experienced director and other staff physicians. Industrial experience will be helpful, but experience acquired in private practice is equally acceptable.

Our program of fringe benefits adds much to an already attractive salary base. If you are interested in this kind of rewarding, long-term association, please send your curriculum vitae and salary requirements to: S. J. Cyran, M.D., General Electric, Dept. B, Appliance Park, Bldg. 3, Louisville, Kentucky 40225

GENERAL  ELECTRIC

An Equal Opportunity Employer M/F

AMA Delegates' Deliberations

THE American Medical Association House of Delegates met for the regular fall session at Anaheim, California, December 2-5, 1973. Representing KMA were delegates Tom Giannini, John Quertermous, Dave Stevens; and Alternate Delegates Bryant, Bill Hall, and Tom Heavern. Transcending all issues, as measured by intensity of interest, was consideration of Professional Standards Review Organizations. Final resolutions supporting repeal of the law and the alternative, the AMA Board of Trustees' recommendation advocating compliance to implement the law in the best interests of the public and physicians outlined the two points of view. Many delegates and individual physicians (two from Kentucky) spoke on the issue. The House of Delegates adopted the Board report and incorporated the language of the KMA PSRO resolution in one amendment. The AMA position on PSRO is that the medical profession remain firmly committed to the principle of peer review under professional direction. Present indicated action will work with the governmental agencies to implement the law, but, simultaneously, inform the public of evils of the law and ask Congress to amend or repeal the law. The AMA House of Delegates also moved to change the name of the new allergy board to the Conjoint Board of Pediatric and Internal Medicine Allergy. The AMA will next meet in Chicago in June, 1974, and all delegates and alternates invite your comments and opinions.

DAVID B. STEVENS, M.D.,
Delegate to the AMA
THOMAS L. HEAVERN, M.D.,
Alternate Delegate
CHARLES G. BRYANT, M.D.,
Alternate Delegate

General LEASING

Doctor! This is Your Own Plan
ENDORSED BY THE

**Kentucky Medical
Association**

for the leasing of

cars — all makes & models,
Medical, Surgical & Laboratory
Equipment
and Office Furnishings.

**13 YEARS EXPERIENCE
IN THIS FIELD**

**General Leasing
CORPORATION**

121 Bauer Ave. St. Matthews

(502) 896-0383

Synthroid

(sodium levothyroxine)

the smooth road to thyroid replacement therapy.

Synthroid is T₄.
It provides your patients with
what is needed for complete
thyroid replacement therapy.



Free Tab-Minder sample
packages available
from Flint Professional
Services Department.

Indications: SYNTHROID (sodium levothyroxine) is specific replacement therapy for diminished or absent thyroid function resulting from primary or secondary atrophy of the gland, congenital defect, surgery, excessive radiation, or antithyroid drugs. Indications for SYNTHROID (sodium levothyroxine) **Tablets** include myxedema, hypothyroidism without myxedema, hypothyroidism in pregnancy, pediatric and geriatric hypothyroidism, hypopituitary hypothyroidism, simple (nontoxic) goiter, and reproductive disorders associated with hypothyroidism. SYNTHROID (sodium levothyroxine) **for Injection** is indicated for intravenous use in myxedematous coma and other thyroid dysfunctions where rapid replacement of the hormone is required. The injection is also indicated for intramuscular use in cases where the oral route is suspect or contraindicated due to existing conditions or to absorption defects, and when a rapid onset of effect is not desired.

Precautions: As with other thyroid preparations, an overdosage of SYNTHROID (sodium levothyroxine) may cause diarrhea or cramps, nervousness, tremors, tachycardia, vomiting and continued weight loss. These effects may begin after four or five days or may not become apparent for one to three weeks. Patients receiving the drug should be observed closely for signs of thyrotoxicosis. If indications of overdosage appear, discontinue medication for 2-6 days, then resume at a lower dosage level. In patients with diabetes mellitus, careful observations should be made for changes in insulin or other antidiabetic drug dosage requirements. If hypothyroidism is accompanied by adrenal insufficiency, such as Addison's Disease (chronic adrenocortical insufficiency), Simmonds's Disease (panhypopituitarism) or Cushing's syndrome (hyperadrenalism), these dysfunctions must be corrected prior to and during SYNTHROID (sodium levothyroxine) administration. The drug

should be administered with caution with cardiovascular disease; development of chest pains or other aggravations of cardiac disease requires a reduction in

Contraindications: Thyrotoxicosis, acute myocardial infarction. **Side effects:** The effects of SYNTHROID (sodium levothyroxine) therapy may be manifested. Side effects, when they occur, are secondary to increased rate of metabolism; sweating, heart palpitations, or without pain, leg cramps, and weight loss. Diarrhea, vomiting, and nervousness have been observed. Myxedematous patients with heart disease have died from abrupt changes in dosage of thyroid drugs. Careful observation of the patient during the beginning of therapy will alert the physician to possible side effects.

It has been shown that *Synthroid* (T₄) converts to T₃ at the cellular level to supply metabolic needs.^{1, 2}

1 *Synthroid* is T₄.

2 Because T₄ converts to T₃ at the cellular level, it provides full thyroid replacement at maintenance doses.^{1, 2}

3 T₄ hormone content is controlled by chemical assay.

4 *Synthroid* is assayed chemically; no biologic test is necessary to measure potency.

5 *Synthroid* provides predictable results when used with current thyroid function tests.

6 *Synthroid* is the most prescribed brand name of thyroid in the U.S. and Canada.

7 Sodium levothyroxine in *Synthroid* tablets is chemically pure. It does not contain any animal gland parts.

8 When stored properly, *Synthroid* has a longer shelf life than desiccated thyroids.

9 On a daily basis, *Synthroid* is cost competitive with other thyroid products.

The smooth road to
thyroid replacement therapy.

Synthroid[®]
(sodium levothyroxine)

cases with side effects, a reduction of
followed by a more gradual adjustment
will result in a more accurate indication
of the patient's dosage requirements without the
risk of side effects.

Indication and Administration: The activity of
SYNTHROID (sodium levothyroxine)
is equivalent to approximately one grain
of U.S.P. Administer SYNTHROID tablets
at the daily dose. In hypothyroidism with-
out myxedema, the usual initial adult dose is
0.025 mg. daily, and may be increased by 0.1 mg.
every 2-3 days until proper metabolic balance is
achieved. Clinical evaluation should be made
by T₄ and PBI measurements about every 90
days. Maintenance dosage will usually
range from 0.2-0.4 mg. daily. In adult myxedema,
the initial dose should be 0.025 mg. daily. The

dose may be increased to 0.05 mg. after two
weeks and to 0.1 mg. at the end of a second two
weeks. The daily dose may be further increased
at two-month intervals by 0.1 mg. until the opti-
mum maintenance dose is reached (0.1-1.0 mg.
daily).

Supplied: Tablets: 0.025 mg., 0.05 mg., 0.1 mg.,
0.15 mg., 0.2 mg., 0.3 mg., 0.5 mg., scored and
color-coded, in bottles of 100, 500, and 1000. In-
jection: 500 mcg. lyophilized active ingredient
and 10 mg. of Mannitol, U.S.P., in 10 ml. single-
dose vial, with 5 ml. vial of Sodium Chloride In-
jection, U.S.P., as a diluent. SYNTHROID
(sodium levothyroxine) for Injection may be ad-
ministered intravenously utilizing 200-400 mcg.
of a solution containing 100 mcg. per ml. If sig-
nificant improvement is not shown the following
day, a repeat injection of 100-200 mcg. may be
given.

1. Braverman, L. E., Ingbar, S. H., and Sterling,
K.: Conversion of Thyroxine (T₄) to Triiodothyro-
nine (T₃) in Athyreotic Human Subjects, *J. Clin.*
Invest. 49:855-64, 1970.

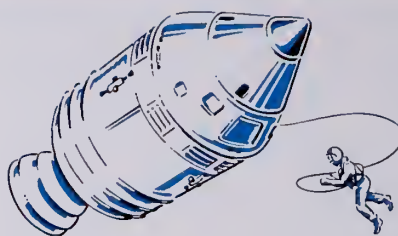
2. Surks, M. I., Schadow, A. R., and Oppen-
heimer, J. H.: A New Radioimmunoassay for
Plasma L-Triiodothyronine: Measurements in
Thyroid Disease and in Patients Maintained on
Hormonal Replacement. *J. Clin. Invest.* 51:3104-
13, 1972.



FLINT LABORATORIES

DIVISION OF TRAVENOL LABORATORIES, INC.

Deerfield, Illinois 60015



Man in space, now fait accompli, re-emphasizes the importance of Uro-Phosphate therapy. Research into the effect of space travel on the astronaut reveals that weightlessness causes loss of bone calcium. As the bones are required to bear less and less of the weight of the body they lose calcium, increasing the calcium content of the urine. When physical activity is reduced, the acidity of the urine should be adjusted to keep increased calcium in solution . . . a prophylaxis to prevent kidney or bladder calculi.

Uro-Phosphate®

NOW A SUGAR-COATED TABLET

Each tablet contains: METHENAMINE, 300 mg.; SODIUM ACID PHOSPHATE, 500 mg.

Uro-Phosphate gives comfort and protection when inactivity causes discomfort in the urinary function. It keeps calcium in solution, preventing calculi; it maintains clear, acid, sterile urine; it encourages

complete voiding and lessens frequency when residual urine is present.

Uro-Phosphate contains sodium acid phosphate, a natural urinary acidifier. This component is fortified with methenamine which is inert until it reaches the acid urinary bladder. In this environment it releases a mild antiseptic keeping the urine sterile.

Uro-Phosphate is safe for continuous use. There are no contra-indications other than acidosis. It can be given in sufficient amount to keep the urine clear, acid and sterile. A heavy sugar coating protects its potency.

Dosage:

For protection of the inactive patient 1 or 2 tablets every 4 to 6 hours is usually sufficient to keep the urine clear, acid and sterile.


2 tablets on retiring will keep residual urine acid and sterile, contributing to comfort and rest.

A clinical supply will be sent to physicians and hospitals on request.




WILLIAM P. POYTHRESS & COMPANY, INC., RICHMOND, VIRGINIA 23217

Manufacturers of Ethical Pharmaceuticals



MATERNAL MORTALITY



From the Files of the KMA Maternal Mortality Study Committee

—Edited by John W. Greene, Jr., M.D.

THIS patient was a 24-year-old married white gravida II, para 0, Ab I seen in this pregnancy by a private physician. Expected due date was December 17, 1971. Her medical history was significant in that she had been diabetic since 12 years of age. Her first pregnancy terminated at three months in spontaneous abortion. She had been hospitalized in May 1970 for tuberculosis and was treated with INH and PAS. Since then her sputums were negative.

She was hospitalized several times with this pregnancy, initially on August 2, 1971 for edema. She was 20 weeks pregnant and her diabetes was controlled with 40 NPH insulin. Her vision had been getting progressively worse. She had been told she had early cataracts.

She was treated with bed rest, a high protein diet, and 40 units NPH insulin. She was discharged August 7, 1971 to be followed as an out-patient.

She was readmitted September 4, 1971, when 25 weeks pregnant, for edema. Obstetrical consultation was obtained and the plan was to stabilize her diabetes and deliver her by Cesarean section at 36 weeks and do a tubal ligation. If she could not be controlled the pregnancy would be terminated earlier. She was discharged on September 8, 1971 with albuminuria, hypo albuminemia, and edema.

She was readmitted October 14, 1971 because of edema. Her BUN was 32, her serum albumin was low 1.6 gm %. She continued to have 3+ albuminuria. Her hemoglobin was 8.8 gm %. She received two units of whole blood in addition to salt poor albumin. She lost 4 lb and was discharged.

She was readmitted November 18, 1971 because of increasing shortness of breath. An

x-ray was ordered for fetal age. She had rales in the base right lung. She had an episode of dyspnea with wheezing. Her blood pressure was elevated 182/120. She received Lasix plus Aminophyllin; she was typed and cross-matched for blood. She received Digitalis. Her lungs cleared some. She was extremely edematous. Her hemoglobin the 23rd of November was 8.5, so more blood was given. Her Na was 108, K 3.6. This was felt due to water intoxication secondary to renal difficulty producing the edema. Her BUN was 51 the 25th, Na 136, K 5.9. She was confused. Her condition was described as very poor. Her Hb was 7.4 gm % and packed cells were given.

She began having spontaneous uterine contractions beginning at 8:00 p.m. the 26th and delivered an unweighed stillborn at 11:47 p.m. with midline episiotomy and low forceps with a pudendal block. The placenta was expressed spontaneously and the episiotomy was repaired. She had abdominal distention and a naso-gastric tube was inserted.

The 29th, her temperature was elevated all day; she had a foul vaginal discharge. At 8:00 p.m. she had a cardiac arrest; attempts at resuscitation were unsuccessful.

There was no autopsy; the cause of death was listed as pulmonary embolism from possible pelvic veins of septic embolus, diabetes, pregnancy, probable Kimmelsteil Wilson Disease.

Comments

The Committee classified this death as an obstetrical one with preventable factors. Diabetes complicating pregnancy can present severe complications for both fetus and mother. This is one of the diseases in which it has both an effect on the pregnancy and the fetus.

She would be classified as a class C diabetic according to the White Classification of Diabetes Mellitus. However, it is noted in the case presentation that she was told that she had cataracts. No mention is made of the eye ground changes. If there were such changes, coupled with the fact that she had evidence of cardiac renal disease, she would then be classified as a class F diabetic. These people present such grave complications that certain clinics have recommended therapeutic abortions for the Class F diabetic. The chances of obtaining a living fetus are less than 50% and the complications for the mother, such as presented here, are great.

However, this patient did not seem to receive the vigorous treatment for her diabetes and other complications that was necessary. The groups that report the best results, both

as to fetus and mother, hospitalize these people early in pregnancy and some as early as the 20th and 25th week. The patient is hospitalized in an attempt to maintain normal blood sugars and avoid any maternal acidosis. She demonstrated cardiac decompensation which might have been prevented had the anemia been treated more vigorously. Today there are sophisticated laboratory tests for determining fetal health, such as, estriol excretion in an attempt to time delivery at the optimum time.

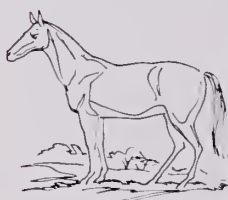
Again, the Committee laments the fact that there was no autopsy. Although the cause of death was listed as pulmonary embolism from possible pelvic veins thrombosis, we cannot be certain. It would more likely seem that she died of congestive heart failure that was not adequately treated.

At Your Service in The Bluegrass State

In the state* that got its
nickname from the dusty-blue
blossoms of the grass
around Lexington . . .

IV PHARMACEUTICAL DIVISION
MARION
LABORATORIES, INC.
KANSAS CITY, MO. 64137

is represented by . . .



Larry Farmer



Lee Fuqua



John McKinney



Bill Nicol



Larry Plumlee



Jon Swanson

*For more information on the history of your
state, write Professional Services,
Marion Laboratories, Inc.

These men bring you . . .



Manuscript Memos

Manuscripts should be submitted in duplicate to the Journal of KMA, an original copy and one carbon and typed with double spacing. Maximum length of an article should not exceed 4500 words; the Board of Consultants on Scientific Articles prefers that they be no longer than this when possible.

When submitting a manuscript, the author is requested to include a concise summary, not to exceed 35 words, to be used as a sub-title when the article is published in the Journal. The purpose of the summary is to provide additional interest and encourage greater readership.

Footnotes and bibliographies should conform to the style of the Quarterly Cumulative Index Medicus published by the American Medical Association. This includes in the order given name of author, title of article, name of periodical, with volume, page, month and year of month if weekly—and year. The Journal of the KMA does not assume responsibility for the accuracy of references used with scientific articles.

All scientific material appearing in *The Journal* is reviewed by the Board of Consultants on Scientific Articles. The editors may use up to six illustrations with the essayist bearing the cost of all over three one-column halftones.

Arrangements for reprints of an article should be made directly with the publisher of *The Journal*, Gibbs-Inman Printing Company, 817 W. Market St., Louisville, Ky.

The bylaws of the Kentucky Medical Association provide that all scientific discussions and papers read before the KMA Annual Meeting shall be referred to the KMA Journal for consideration for publication. The bylaws further state that the editor or the associate editor may accept or reject these papers as it appears advisable and return them to the author if not considered suitable for publication.

Please mail your scientific articles to *The Journal* of the Kentucky Medical Association, 3532 Ephraim McDowell Drive, Louisville, Kentucky 40205.

News Notes

Dr. William C. Polk, Jr., M.D., Louisville, was recently elected President-Elect of the Association for Academic Surgery. Doctor Polk is chairman of the Department of Surgery at the University of Louisville School of Medicine.

Andrew M. Moore, M.D., Lexington, was chosen as President-Elect of the Southern Medical Association at its recent annual meeting. Doctor Moore will assume the presidency at the 1974 meeting to be held November 17-20 in Atlanta.

**For comfort
in your prescription
of nicotinic acid**



THE OPTIMAL-DOSE, 400-mg, timed-release NICO-400® (nicotinic acid) capsule provides • Controlled flushing for the desired effects without therapy-limiting side effects. • Convenient b.i.d. dosage that's less likely to be forgotten. • The economy of nicotinic acid medication.

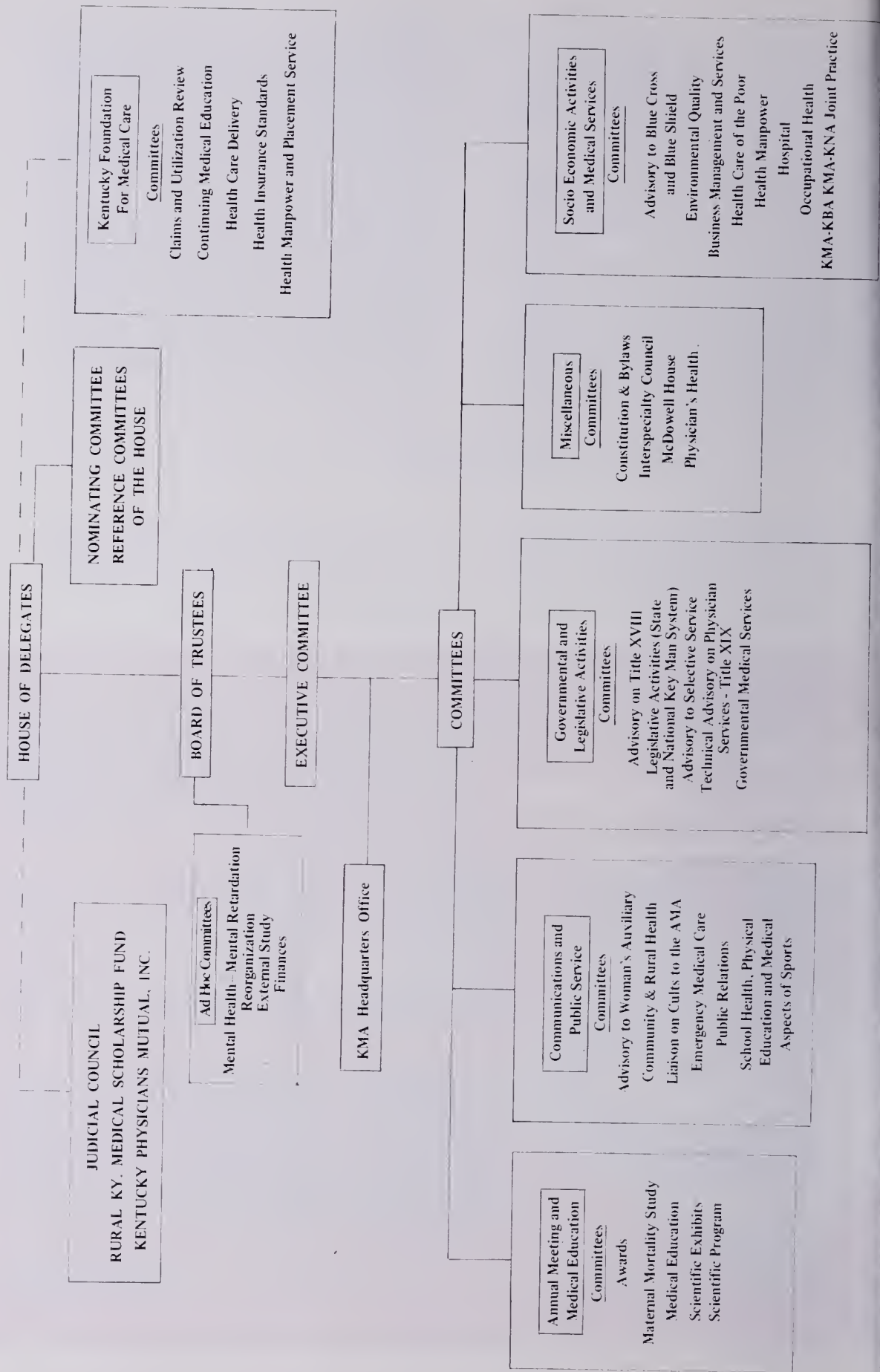
For comfort wherever nicotinic acid is used

NICO-400®
(nicotinic acid) Plateau CAPS®

Description: Each capsule contains 400 mg of nicotinic acid in a special base that provides a prolonged systemic effect. **Indications:** NICO-400® is recommended for all disease states in which nicotinic acid has been used. These include conditions associated with deficient circulation and for use in the correction of nicotinic acid deficiencies. **Contraindications:** Individuals with a hypersensitivity to nicotinic acid, severe hypotension or hemorrhaging. **Warnings:** Use with caution in those patients with history of peptic ulcer, severe diabetes, impaired gall bladder or liver functions and in pregnant women. **Adverse Reactions:** Patients should be informed of the short-lived reactions experienced with nicotinic acid therapy: cutaneous flushing, a sensation of warmth, tingling and itching of the skin, increased gastrointestinal motility and sebaceous gland activity. **Dosage and Administration:** One capsule every 12 hours or as directed by physician. **Caution:** Federal law prohibits dispensing without prescription. **How Supplied:** Bottles of 100 capsules.

Another patient benefit product from

MARION
PHARMACEUTICAL DIVISION
LABORATORIES INC.
KANSAS CITY, MISSOURI 64113



Integument!

Skin—the human integument covers us, defines us, protects us, but skin is subject to cuts, scratches, abrasions. And infections. Neosporin Ointment fights infection by providing broad antibacterial action against susceptible skin invaders. It contains antibiotics that are rarely used topically, reducing the risk of sensitization.

INDICATIONS: *Therapeutically*, used as an adjunct to appropriate systemic therapy for topical infections, primary or secondary, due to susceptible organisms, as in:

- infected burns, skin grafts, surgical incisions, otitis externa
- primary pyodermas (impetigo, ecthyma, sycosis vulgaris, paronychia)
- secondarily infected dermatoses (eczema, herpes, and seborrheic dermatitis)
- traumatic lesions, inflamed or suppurating as a result of bacterial infection.

Prophylactically, the ointment may be used to prevent bacterial contamination in burns, skin grafts, incisions, and other clean lesions. For abrasions, minor cuts and wounds accidentally incurred, its use may prevent the development of infection and permit wound healing.

CONTRAINDICATIONS: Not for use in the external ear canal if the eardrum is perforated. This product is contraindicated in those individuals who have shown hypersensitivity to any of the components.

PRECAUTION: As with other antibiotic preparations, prolonged use may result in overgrowth of nonsusceptible organisms and/or fungi. Appropriate measures should be taken if this occurs. Articles in the current medical literature indicate an increase in the prevalence of persons allergic to neomycin. The possibility of such a reaction should be borne in mind.

Complete literature available on request from Professional Services Dept. PML.

NEOSPORIN[®] Ointment

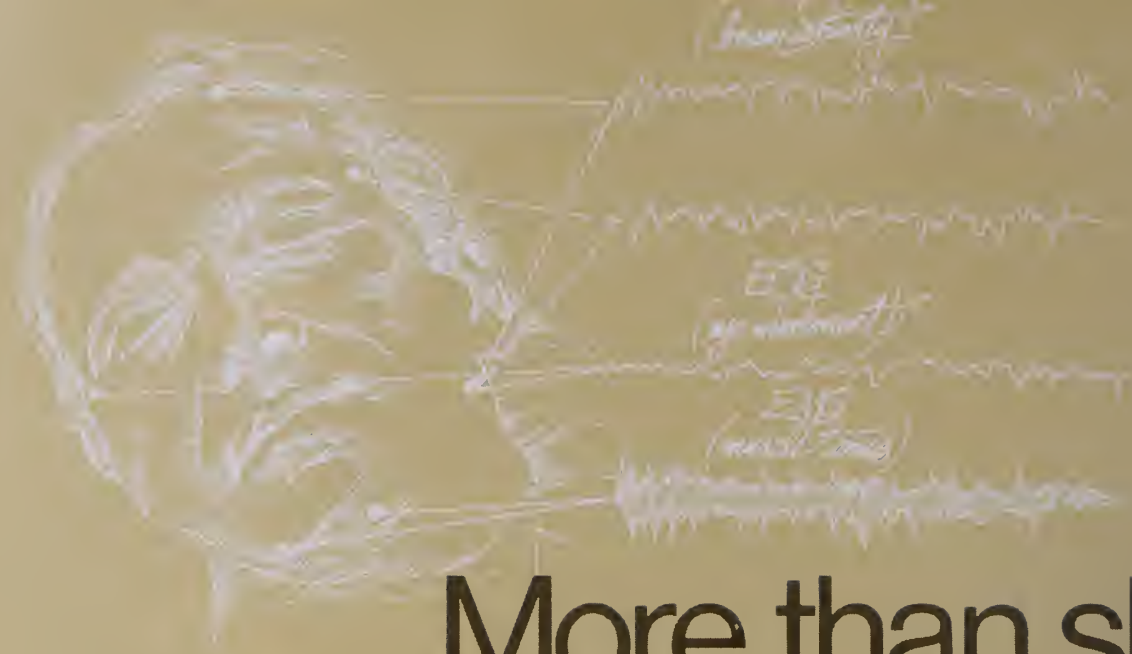
(POLYMYXIN B-BACITRACIN-NEOMYCIN)

Each gram contains: Aerosporin[®] brand Polymyxin B Sulfate 5,000 units; zinc bacitracin 400 units; neomycin sulfate 5 mg. (equivalent to 3.5 mg. neomycin base); special white petrolatum q.s. In tubes of 1 oz. and ½ oz. and ¼ oz. (approx.) foil packets.



Wellcome

Burroughs Wellcome Co.
Research Triangle Park
North Carolina 27709



More than sleep

your choice of sleep medication is wisely based on more than sleep-inducing potential

sleep with relative safety

Chronic tolerance studies have confirmed the relative safety of (flurazepam HCl); no depression of cardiac or respiratory function was noted in patients administered recommended or high doses for as long as 90 consecutive nights.

In most instances when adverse reactions were reported, they were mild, infrequent and required discontinuance of therapy. Morning "hang-over" with Dalmane has been relatively infrequent. Drowsiness, lightheadedness and the like have been the side effects noted most frequently, particularly in the elderly and debilitated. (An initial dose of Dalmane 15 mg should be prescribed for these patients.)

sleep for 7 to 8 hours without need to repeat dosage

No side effects have been as rigorously evaluated in the sleep research laboratory as Dalmane. Insomniacs given one 30-mg capsule of Dalmane at bedtime, on average: fell asleep within 17 minutes, had few nighttime awakenings, spent less time awake after sleep onset, and slept for 7 to 8 hours with no need for repeat dosage during the night.

with
istency

ne (flurazepam HCl) is a distinctive sleep medication—a
pine specifically indicated for insomnia. It is not a bar-
methaqualone, nor is it related chemically to any other
notic.

our evaluation of insomnia indicates the need for a sleep
consider Dalmane—a single entity nonnarcotic, non-
agent proved effective and relatively safe for relief of

DALMANE[®]

(flurazepam HCl)

When restful sleep is indicated

One 30-mg capsule *h.s.*—usual adult dosage
(15 mg may suffice in some patients).

One 15-mg capsule *h.s.*—initial dosage for elderly or
debilitated patients.

Dalmane has been shown to be con-
sistently effective even during con-
secutive nights of administration,
with no need to increase dosage.

Before prescribing Dalmane (flurazepam HCl), please consult Complete Product Information, a summary of which follows:

Indications: Effective in all types of insomnia characterized by difficulty in falling asleep, frequent nocturnal awakenings and/or early morning awakening in patients with recurring insomnia or poor sleeping habits, and in acute or chronic medical situations requiring restful sleep. Since insomnia is often transient and intermittent, prolonged administration is generally not necessary or recommended.

Contraindications: Known hypersensitivity to flurazepam HCl.

Warnings: Caution patients about possible combined effects with alcohol and other CNS depressants. Caution against hazardous occupations requiring complete mental alertness (e.g., operating machinery, driving). Use in women who are or may become pregnant only when potential benefits have been weighed against possible hazards. Not recommended for use in persons under 15 years of age. Though physical and psychological dependence have not been reported on recommended doses, use caution in administering to addiction-prone individuals or those who might increase dosage.

Precautions: In elderly and debilitated, initial dosage should be limited to 15 mg to preclude oversedation, dizziness and/or ataxia. If combined with other drugs having hypnotic or CNS-depressant effects, consider potential additive effects. Employ usual precautions in patients who are severely depressed, or with latent depression or suicidal tendencies. Periodic blood counts and liver and kidney function tests are advised during repeated therapy. Observe usual precautions in presence of impaired renal or hepatic function.

Adverse Reactions: Dizziness, drowsiness, lightheadedness, staggering, ataxia and falling have occurred, particularly in elderly or debilitated patients. Severe sedation, lethargy, disorientation and coma, probably indicative of drug intolerance or overdosage, have been reported. Also reported were headache, heartburn, upset stomach, nausea, vomiting, diarrhea, constipation, GI pain, nervousness, talkativeness, apprehension, irritability, weakness, palpitations, chest pains, body and joint pains and GU complaints. There have also been rare occurrences of sweating, flushes, difficulty in focusing, blurred vision, burning eyes, faintness, hypotension, shortness of breath, pruritus, skin rash, dry mouth, bitter taste, excessive salivation, anorexia, euphoria, depression, slurred speech, confusion, restlessness, hallucinations, and elevated SGOT, SGPT, total and direct bilirubins and alkaline phosphatase. Paradoxical reactions, e.g., excitement, stimulation and hyperactivity, have also been reported in rare instances.

Dosage: Individualize for maximum beneficial effect. *Adults:* 30 mg usual dosage, 15 mg may suffice in some patients. *Elderly or debilitated patients:* 15 mg initially until response is determined.

Supplied: Capsules containing 15 mg or 30 mg flurazepam HCl.



ROCHE LABORATORIES
Div., Hoffmann-La Roche Inc.
Nutley, New Jersey 07110

It's time for action to defend the law and regulations that protect your patients against drug substitution

These professional and trade organizations are
in supporting antisubstitution statutes and regu

The American Academy of Der

The Board of Directors of the
American Academy of Family
Physicians

The Executive Board of the
American Academy of Neurolo

The Committee on Drugs of the
American Academy of Pediatr

The American College of Allerg

The Executive Committee of th
American College of Obstetrici
and Gynecologists

The Board of Regents of the
American College of Physician

The Board of Trustees of the
American Dental Association

The Board of Trustees of the
American Medical Association

The American Psychiatric As

The Executive Committee of
National Association of Reta
Druggists

The Board of Directors of the
Pharmaceutical Manufacturers
Association

The National Wholesale Druggi
Association



Statement on Antisubstitution Laws and Regulations

Purpose of this statement is to gain the support of the participations for the laws, regulations, professional traditions which prohibit unauthorized substitution of drugs. Additionally, physicians, dentists and pharmacists have worked together to serve the best interests. Productive cooperation has been achieved through mutual respect as well as a common understanding of the ideals of public health. This mutual respect has been demonstrated in part, by joint support and efforts for the adoption and enforcement of laws and regulations which prohibit unauthorized substitution and encourage joint decision and selection of the supply of drug products. The principles of medical, dental and pharmacy practice are thus preserved in the interest of public welfare.

Antisubstitution laws have restricted enhancement of the legal status of pharmacy and they have in and of themselves guaranteed absolute protection of unsafe drugs, or freed physicians, dentists and pharmacists of their responsibilities to patients. In this matter, however, such regulations encourage internal communications regarding product selection and assure the profession the opportunity to fully utilize its expertise in drug therapy to the advantage of patients. Physicians and dentists should be encouraged to increase the frequency and clarity of their contacts with pharmacists in selection of quality drug products, recognizing that

economies to patients can be improved through such communication, taking into account the patients' needs. The pharmacist's knowledge of the chemical characteristics of drugs, their mode of action, toxic properties and other characteristics that assist in making drug selection decisions should be utilized to the fullest extent practicable by physicians and dentists in serving their patients.

Since drug product selection entails knowledge derived from clinical experience, the physician's and dentist's roles in product selection remain primary and do not permit delegation of decisions requiring medical and dental judgments. A broader role in therapy will evolve for pharmacists as improved understanding and cooperation among the professions continue to grow.

There has been no evidence that there are convincing reasons to modify or repeal existing laws and regulations prohibiting the unauthorized substitution of another drug product for the one specified by a prescriber. It is our belief that such laws and regulations merit the joint support of the medical, dental and pharmaceutical professions and the pharmaceutical industry.

Add your opinion to the weight of other professionals and send it to your state assemblyman or legislator.

*Pharmaceutical Manufacturers Association
1155 Fifteenth Street, N.W., Washington, D. C. 20005*





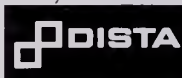
Not too little, not too much...
but just right!

"Just right" amounts of Ilosone Liquid 250
can be dispensed easily from the pint bottle in *any* quantity
you specify to meet your patients' precise needs —
without regard to package size.

ready-mixed

ILOSONE[®] LIQUID 250
ERYTHROMYCIN ESTOLATE
(equivalent to 250 mg. erythromycin per 5-ml. teaspoonful)

Additional information available to the profession on request.



Dista Products Company
Division of Eli Lilly and Company
Indianapolis, Indiana 46206

400054

The JOURNAL *of the* Kentucky Medical Association

ISSUED MONTHLY UNDER THE DIRECTION OF THE BOARD OF TRUSTEES

VOLUME 72

JANUARY 1974

No. 1

The Diagnosis of Renovascular Hypertension in a Young Adult: Insensitivity of Noninvasive Screening Procedures*

THEODORE A. KOTCHEN, M.D., DAVID PRESTON, M.D., AND
CALVIN B. ERNST, M.D.

Lexington, Kentucky

In a patient with surgically proven renovascular hypertension, a rapid sequence pyelogram was normal, and a renogram was non-lateralizing. The importance of arteriography in selected patients, in the absence of positive screening procedures, is emphasized.

AMONG patients with hypertension, it has been estimated that the prevalence of renovascular hypertension is between 5 and 15%.¹ Both the rapid sequence intravenous pyelogram and the radiohippurate renogram are the screening procedures most frequently utilized to detect this surgically remediable form of hypertension. At least 10% of patients with surgically proven renovascular hypertension are not identified by the hypertensive pyelogram,² and the overall incidence of false negative renograms is even greater.³ In children with proven renovascular hypertension, the screening excretory pyelogram is a dismal failure.⁴ However, in clinical studies combining the intravenous pyelogram and renogram,

the absence of lateralizing findings with a unilateral stenotic lesion of the main renal artery is distinctly unusual. The purpose of the present report is to describe such a patient and to emphasize the importance of performing renal arteriography in selected hypertensive patients, particularly young patients, despite the presence of a normal hypertensive pyelogram and renogram. In addition, the importance of angiographic identification of collateral vessels bypassing the stenotic renal artery lesion, documenting hemodynamic significance of the stenosis, is emphasized.

Case Presentation

S. G., a 23-year-old Caucasian woman, presented with blurred vision and severe hypertension.

In January, 1970, at age 21, the patient had consulted her personal physician because of frequent throbbing frontal headaches. Her blood pressure was consistently found to be in the range of 190/110 mm Hg. Urinalysis, SMA 12, EKG, PBI, and VMA excretion were normal. A rapid sequence IVP was normal. In April 1971, her blood pressure was 220/130 mm Hg, and a right-sided abdominal bruit was heard. A rapid sequence IVP was again normal. A renal arteriogram demonstrated an accessory renal artery on the right, but was

*From the Departments of Medicine, Nuclear Medicine, and Surgery, University of Kentucky College of Medicine, Lexington

otherwise interpreted as normal. She first appeared at the University of Kentucky Medical Center in September, 1972, complaining of blurred vision, having discontinued antihypertensive medications eight months previously. Her blood pressure was 230/180 mm Hg, and bilateral hemorrhages, exudates, and papilledema were present on fundoscopic examination.

On admission she appeared, thin, lethargic, and chronically ill. Her supine and standing blood pressures were 260/160 mm Hg and 230/160 mm Hg, respectively. Grade IV hypertensive retinopathy was observed. There was a prominent presystolic gallop but no signs of congestive heart failure. A right upper quadrant abdominal bruit was present. Urinalysis showed 3+ proteinuria, 10-15 WBC/Hpf, and occasional fine granular casts. Initial serum chemistries were as follows: Na⁺ 138 mEq/L, K⁺ 2.8 mEq/L, CO₂ 28 mEq/L, Cl 92 mEq/L, BUN 19 mg%, serum creatinine 1.0 mg%, creatinine clearance 47 cc/min. Several urine cultures were negative, and three 24-hour urine VMA excretion rates were 3.2 mg/24 hr, 3.6 mg/24 hr, and 2.3 mg/24 hr. Thyroid function tests and chest x-ray were normal. EKG demonstrated sinus tachycardia, promi-

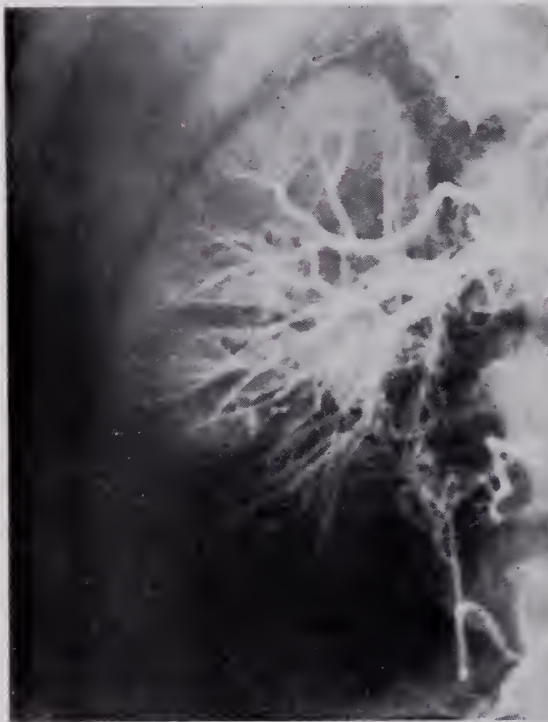


Fig. 1 Renal arteriogram demonstrating stenotic lesion and collateral circulation (arrow).

Table I

Reactivity of Exogenous Renin in Renal Venous Plasma	Right Renal Vein Left Renal Vein	
Total angiotensin generation (ng/ml/min)	2.7	2.3
Endogenous angiotensin generation (ng/ml/min)	1.6	1.0
Corrected angiotensin generation (ng/ml/min)	1.1	1.3
Renin Substrate (ng/ml)	1775	1775

nent U waves, and left posterior hemiblock.

A hypertensive intravenous pyelogram demonstrated prompt and equal visualization of both kidneys. Both the density and excretion of contrast material were equal bilaterally. The right and left kidneys each measured 11.5 cm. A sitting renogram, performed after the intravenous injection of 100 uCi I-hippuran, was also not indicative of unilateral renal artery stenosis. Although there was a bilateral delay of renal transit time (nine minutes), the slopes of both the secretory and excretory phases of the renogram were actually steeper on the right side. A renal arteriogram demonstrated two renal arteries on the right and one on the left. Stenosis of the main right renal artery was observed just proximal to its bifurcation with post stenotic dilatation of both branches distal to the lesion. Collateral circulation to the right kidney, possibly from an inferior lumbar artery, was present (Fig. 1). Renal venous renin activities, measured by the radioimmunoassay method of Haber,⁵ in the right and left renal veins, were 50.7 ng/ml/hr and 29.1 ng/ml/hr, respectively; the right to left ratio was 1.7. Peripheral renin activity was 44.3 ng/ml/hr. In our laboratory, normal peripheral renin activity in blood obtained at noon from 27 control subjects consuming a regular diet is 1.3 ng/ml/hr \pm 0.1 SE.

Using previously described methods,⁶ the reactivity of exogenous renin was measured in plasma obtained from each renal vein preoperatively. After adding a relatively large and constant amount of exogenous human renin to plasma from each renal vein, the angiotensin I generation rates in right and left venous plasma after a 30 minute incubation at 37°C

were 2.7 ng/ml/min and 2.3 ng/ml/min, respectively. To correct for differences in endogenous renin activity, the concentration of angiotensin I produced during the 30 minute incubation without the addition of exogenous renin (endogenous angiotensin generation rate) was subtracted from that measured in the aliquot containing exogenous renin. After making this correction, the reactivity of exogenous renin with endogenous substrate was essentially identical in plasma from each renal vein. Renin substrate concentration was 1775 ng/ml in both right and left renal venous plasma.

On October 22, 1972, an autogenous saphenous vein aortorenal graft was placed between the aorta and each of the two branches of the right main renal artery. Figures 2 and 3, respectively, demonstrate the slit-like lumen in the resected segment of the renal artery and marked intimal dysplasia in that segment. In the early postoperative period, she was essentially normotensive on no drug therapy; 12 months postoperatively her blood pressure was 120/84 mm Hg on alphamethyldopa, 250 mg b.i.d., and chlorothiazide, 250 mg b.i.d. Renal arteriography documented a satisfactorily functioning vein graft 12 months postoperative.



Fig. 2 Gross pathology of a segment of resected renal artery.

Discussion

This patient with proven renovascular hypertension due to stenosis of a main renal artery documents the unreliability of the combined use of rapid sequence excretory pyelography and radioisotopic renography. In addition to the stenotic vessel, the kidney on the affected side was also supplied by a second renal artery. Conceivably, blood flow through this accessory vessel may have obscured the lateralizing signs

on both the IVP and renogram. Such a diagnostic dilemma presented by this patient emphasizes the importance of proceeding to renal arteriography in evaluation of young hypertensive individuals despite the presence of a normal hypertensive pyelogram and a non-lateralizing renogram.



Fig. 3 Low power photomicrograph of a segment of resected renal artery.

In children and young adults, it is extremely uncommon to have a hemodynamically significant renal artery stenosis, documented by arteriography, that is not responsible for the hypertensive state.⁴ Subtle findings on arteriography, exclusive of the stenosis itself, suggest a lesion's hemodynamic significance. Collateral vessels when directly opacified by contrast material are the single best roentgenographic indicator of hemodynamic significance.⁷ Review of arteriograms obtained two years prior to the most recent studies obtained on the patient reported herein identify collateral channels. This subtle finding was not appreciated at that time and definitive therapy was delayed two years.

Improvements in angiographic assessment of hemodynamic significance are largely related to improved recognition of signs of collateral flow. Thus, in addition to the direct demonstration of collateral vessels on arteriography, selective injections of contrast medium into lumbar arteries may be performed for more accurate evaluation of collateral flow. Indirect signs of collateral flow such as dilution defects or reciprocating opacification may be seen on selective arteriography. Recent experiences with pharmacoangiographic augmentation of

flow in collateral vessels appears to be a promising technique but must await additional documentation.^{8,9}

Elevated renin activity in venous effluent from the affected kidney compared to that in the contralateral kidney also indicates functional significance of a stenotic lesion. However, McCallister et al recently reported that renal venous renin activity on the affected side was actually lower than that in venous effluent from the contralateral kidney in a single patient with malignant renovascular hypertension.¹⁰ It was suggested that the stenotic lesion protected the affected kidney from the ischemic changes and subsequent renin release associated with malignant hypertension. In the present patient, despite the presence of uncontrolled malignant hypertension and markedly elevated renin activities, renal venous renin activity on the affected side was 1.7 times that on the contralateral side. Possibly, the absence of the protective effect of the stenotic lesion may be related to the presence of a second renal artery to the affected kidney. However, other instances of higher renin activities in renal venous plasma from the affected side compared to the contralateral side have been reported in patients with malignant hypertension due to renal artery stenosis.^{11,12}

Sambhi and Wiederman reported that the velocity for the reaction between renin and renin substrate, after the addition of exogenous renin, was greater in venous effluent from the affected kidney compared to that from the normal contralateral kidney in patients suspected of having renovascular hypertension. This was interpreted to indicate the presence

of a renin activating mechanism in renal venous plasma from the involved kidney. However, renal venous renin activities were essentially equal on both sides in the majority of these patients, and none had surgically proven renovascular hypertension. The present demonstration of equal substrate concentrations and equal renin reactivities in both renal veins is consistent with previously reported results of similar studies in six other patients with renovascular hypertension.⁶

References

1. Kaufman, J. J., Lupu, A. M., and Maxwell, M. H.: Renovascular Hypertension: Clinical Characteristics, Diagnosis and Treatment. In Breast, A. N. (ed.) *Hypertensive Cardiovascular Disease*. Philadelphia, Penn., Davis, F. H., 1969, pp. 80-112.
2. Bookstein, J. J., Abrams, H. L., Buenger, R. E., Lecky, J., Franklin, S. S., Reiss, M. D., Bleifer, K. H., Klatte, E. C., Varady, P. V., and Maxwell, M. H.: Radiologic Aspects of Renovascular Hypertension. *JAMA* 220:1225-1230, 1972.
3. Maxwell, H. H., Lupu, A. N., and Taplin, G. V.: Radioisotope Renogram in Renal Arterial Hypertension. *J. Urol.* 100:376-383, 1968.
4. Fry, W. J., Ernst, C. B., Stanley, J. C., and Brink, B. E.: Renovascular Hypertension in the Pediatric Patient. *Arch. Surg.* 107: 692-698, 1973.
5. Haber, E., Koerner, T., Page, L. B., Kliman, B., and Purnode, A.: Application of a Radioimmunoassay for Angiotensin I to the Physiologic Measurements of Plasma Renin Activity in Normal Human Subjects. *J. Clin. Endocr. Metab.* 29:1343-1355, 1969.
6. Kotchen, T. A., Rice, T. W., and Walters, D. R.: Renin Reactivity in Normal, Hypertensive, and Uremic Plasma. *J. Clin. Endocr. Metab.* 34:928-937, 1972.
7. Ernst, C. B., Bookstein, J. J., Montie, J., Baumgartel, E., Hoobler, S. W., and Fry, W. J.: Renal Vein Ratios and Collateral Vessels in Renovascular Hypertension. *Arch. Surg.* 104:496-502, 1972.
8. Bookstein, J. J., and Ernst, C. B.: Pharmacangiographic Manipulation of Renal Collateral Flow. *Radiol.* 102:433-434, 1972.
9. Bookstein, J. J., and Ernst, C. B.: Vasodilatory and Vasoconstrictive Pharmacangiographic Manipulation of Renal Collateral Flow. *Radiol.* (In press).
10. McCallister, R. G., Michelakis, A. M., Oates, J. A., and Foster, J. H.: Malignant Hypertension Due to Renal Artery Stenosis: Greater Renin Release from the Nonstenotic Kidney. *JAMA* 221:865-868, 1972.
11. Winer, B. M., Lubbe, W. F., Simon, M., and Williams, J. A.: Renin in the Diagnosis of Renovascular Hypertension. *JAMA* 202:121-128, 1967.
12. Geyskes, G. G., Misage, J. R., Bran, K., Haas, J. E., Berg, G., and Shapiro, A. P.: Malignant Hypertension Following Renal Artery Branch Obstruction. *JAMA* 222: 457-459, 1972.
13. Sambhi, M. P., and Wiederman, C. E.: Renin Activation in the Venous Plasma from the Involved Kidney in the Patient with Renal Hypertension. *J. Clin. Invest.* 51:22-30, 1972.

Abruptio Placenta: Fetal Sequelae

ABE R. FOSSON, M.D.*

Lexington, Kentucky

Abruptio placenta has been associated with fetal problems in 51% of pregnancies with this complication. The outcome was fatal in 28% and in 23% there was significant neonatal morbidity.

THE importance of abruptio placenta lies in the frequency and severity of the insult delivered to the fetus. The facets of this condition associated with favorable and poor prognosis are defined. The study group includes all cases meeting the criteria for placental abruption which occurred between January, 1963 and January, 1971.

Materials and Methods

The requirement for acceptance as bona fide placental abruption was significant adherent retroplacental clot with or without antepartum or intrapartum vaginal bleeding after 28 weeks gestation. Three hundred fifty-two charts were surveyed for 1) severity of abruption according to the clinical classification of Page, King and Merrell,¹ 2) presence and duration of vaginal bleeding, 3) method of delivery, 4) maternal complications, 5) gestational age estimated by the growth curves for head, length, and weight of Lubchenco,² and 6) neonatal complications.

Results

In reported series the incidence of abruptio placenta ranges from 0.5% to 3.5%. The obstetric population studied contained many patients referred to the University Hospital because of third trimester bleeding. This probably accounts for the relatively high incidence of 2.3%. Haynes in 1966 and Goldritch in 1970 reported perinatal mortality rates of 47% and 30% respectively. The University of Kentucky Medical Center perinatal mortality rate com-

pares favorably with these studies. (See Table 1)

Table 1

MORTALITY

	UKMC	Literature
Stillborn	18%	14 to 37%
Neonatal	10%	10 to 15%
Perinatal	28%	30 to 47%

The mortality rates for the various weight categories are shown in Table 2. These rates are higher than expected in the 1000 to 2000 gm birth weight categories.

Table 2

NEONATAL MORTALITY

Birth Weight	Sample	Actual	Predicted*
< 1000 gm	7	57%	85%
1000-1500 gm	17	47%	18%
1500-2000 gm	15	20%	7.6%
2000-2500 gm	35	0	2%
> 2500 gm	69	0	0.1%

*Predicted mortality rates are those from Johns Hopkins Hospital, 1967-1968 as reported in Diseases of the Newborn by Schaffer and Avery, 1971.

Forty-two per cent of the infants were full term with appropriate birth weight for gestational age and suffered no neonatal complications. Twenty-three per cent of the infants experienced significant neonatal problems. Most of these were prematures. All of the infants in the less than 1500 gm weight category either died or had stormy neonatal courses. (See Table 3)

The problems these infants manifested were not unique but were problems common among premature infants. (See Table 4). Transient respiratory distress was defined as tachypnea, with or without grunting and nasal flaring in the absence of hypoxia or abnormal x-ray findings, that cleared within 12 hours of birth. Jaundice was defined as an unconjugated hyperbilirubinemia, 10 mg% or greater.

*Assistant Professor of Pediatrics, University of Kentucky College of Medicine, Lexington

Table 3

NEONATAL MORBIDITY

Birth Weight	Sample	Died	Complicated Course
< 1500 gm	24	12	12
1500-2000 gm	15	3	5
2000-2500 gm	35	0	10
> 2500 gm	69	0	9

In half of the jaundice patients the peak unconjugated bilirubin exceeded 15 mg%. Convulsive activity associated with a blood glucose less than 20 mg% was documented in only one case.

Table 4

NEONATAL PROBLEMS

Sample	141 Live Births	Study Group	Comparison High Risk Groups
Resuscitation Required	26%	6% ⁽³⁾	all live births
Transient Respiratory Distress	8%	—	
Respiratory Distress Syndrome	21%	33% ⁽⁴⁾	(< 1500 gm)
Hypoglycemia Symptomatic	3%	15% ⁽⁵⁾	(< 1500 gm)
Hyperbilirubinemia	12%	59% > 10 mg% Total 28% > 15 mg% Total (6) (< 2500 gm)	
Seizures	4%	0.2 to 0.7% ⁽⁷⁾	all live births
Apnea	8%	25% ⁽⁸⁾	(< 2500 gm)
Intrauterine Growth Retardation	4%	3.4% ⁽⁹⁾	all live births
Meconium Stained	2%	—	
Aspiration Pneumonia	0.7%	5.8% ⁽¹⁰⁾	all live births

Fetal outcome was correlated with maternal history to determine factors predictive of a favorable prognosis. Duration of bleeding, type of delivery (vaginal versus C-section), maternal age, maternal race, severity of abruption¹ and fetal sex were not correlated with fetal outcome. (See Tables 5 through 11)

Good prognosis was associated with advanced gestational age and the absence of depression at birth. The latter was monitored by Apgar scores at one minute and the need for resuscitation. (See Tables 12 through 14)

Discussion

One hundred seventy-six cases of placental abruption were reviewed to delineate the perinatal problems associated with this disorder.

The incidence of 2.3% in this study is overshadowed by the association of premature separation of the normally placed placental with 15% of perinatal deaths.¹⁴ The insult is primarily one of hypoxia and thus may be associated with the sequelae ranging from stillbirth to minimal malfunction of the central nervous system. Only the early and severe sequelae were

Table 5

DURATION OF BLEED—OUTCOME

Duration	Stillborn	Uncomplicated Course	Neonatal Morbidity	Neonatal Death	Total
Occult	3	21	8	1	33
< 4 hours	6	14	9	4	33
5 to 8 hours	1	12	10	2	25
9 to 12 hours	1	7	3	2	13
13 to 24 hours	9	8	5	1	23
25 to 48 hours	0	0	4	1	5
2 to 3 days	4	1	1	2	8
4 to 6 days	0	0	2	0	2
> 7 days	4	13	9	1	27
Unknown	4	1	1	1	7

Table 6

METHOD OF DELIVERY—OUTCOME

Method of Delivery	Stillborn	Uncomplicated Course	Neonatal Problems	Neonatal Deaths	Total
Spont. Vaginal	23	63	35	11	132
Pitocin Induced	1	8	6	0	15
C-Section	8	6	11	4	29

Table 7

MATERNAL AGE — OUTCOME

Maternal Age	Uncomplicated Course	Neonatal Problems	Neonatal Deaths	Total Unfavorable
< 15	6	0	2	2
16-20	19	18	16	34
21-25	18	15	9	24
26-30	16	9	6	15
31-35	7	2	6	8
> 35	11	8	8	16

Table 8

RACE — OUTCOME

Race	Uncomplicated Course	Neonatal Problems	Neonatal Deaths	Total Unfavorable
Black	12	7	8	15
White	65	45	39	84

Table 9¹

Clinical Classification of Abruptio Placenta Severity	
Class O	Unrecognized before birth
Class I	External bleeding only
Class II	Uterine tenderness or tetany & bleeding
Class III	Maternal shock or coagulation defect and fetal death
Class IV	Terminal abruption

Table 10

SEVERITY OF ABRUPTION — OUTCOME				
	Uncomplicated Course	Neonatal Problems	Perinatal Death	Total Unfavorable
Class O	21	7	7	14
Class I	55	40	35	75
Class II	1	5	4	9
Class III	0	0	0	0
Class IV	0	0	1	1

Table 11

	Uncomplicated Course	Neonatal Problems	Neonatal Death	Total Unfavorable
Female	35/54 %	25/39 %	4/7 %	29
Male	42/52 %	27/34 %	11/14 %	38

Table 12

Gestation Age	Uncomplicated Course	Neonatal Problems	Neonatal Deaths	Total Unfavorable
< 31 weeks	2	10	10	20
32-36 weeks	20	28	4	32
≥ 37 weeks	55	14	1	15

Table 13

Apgar	Uncomplicated Course	Neonatal Problems	Neonatal Deaths	Total Unfavorable
0-3	3	15	5	20
4-6	11	15	4	19
7-10	61	21	6	27

Table 14

RESUSCITATION				
	Uncomplicated Course	Neonatal Problems	Neonatal Deaths	Total Unfavorable
Bulb Suction Only	68	26	5	31
Oxygen	9	13	4	17
+ Pressure Ventilation + O ₂	0	13	6	19

monitored by this study. However, Niswander¹⁴ etc., demonstrated a significant increase in neurological dysfunction at a one-year follow-up examination in premature infants born after abruptio placenta. The problems most frequently found to be in association with premature separation of the placenta in the study group were depression at birth necessitating active resuscitation in 26%, respiratory distress syndrome in 21%, and an overall perinatal mortality rate of 28%.

Attempts were made to correlate many historical facts with neonatal and fetal outcome. Only three factors seemed to be predictive of poor outcome. One was low gestational age at the time of delivery as ascertained by the growth curves of Lubchenco.² The other two factors reflected the amount of depression at birth and were low Apgar scores and the need for active resuscitation.

The most rational approach available to lower the mortality of live born infants and obviate neonatal complications would be to attack the two most frequent problems, i.e., depression at birth and respiratory distress syndrome. A skilled person should be available in the delivery room to provide the resuscitation so frequently needed. This same individual could also detect infants with the early signs and symptoms of respiratory distress syndrome and expediate their care.

Conclusions

From data in this study I recommend in every case of suspected abruptio placenta the delivery be attended by a person with expertise in resuscitation because one infant in four requires this procedure. Further, this person should have no other assigned responsibilities except care of the infant. In addition, observation of these infants in a high risk nursery seems indicated. Fifty-two per cent of the infants are premature and over a third of these will experience significant illness during their hospital stay. Even in the term infants, 15% suffer complications.

References

1. Page, E. W., King, E. B., Merrill, J. A: Abruptio Placentae—Dangers of delay in delivery. *Obstet Gynecol* 3: 385-393, April 1954.
2. Lubchenco, L. O., Hansman, C., Boyd, E.: Intrauterine Growth in Length and Head Circumference As Estimated from Live Births at Gestational Ages from 26 to 42 Weeks. *Pediatrics* 37:403-408, March 1966.

3. Apgar, V., Holaday, D. A., James, L. S., Weisbrod, I. M., Berrien, C.: Evaluation of the Newborn Infant. *JAMA* 168:1985-1988, December 1958.
4. Driscoll, S. G., Smith, C. A.: Neonatal Pulmonary Disorders. *Pediatr Clin North Am* 9:325-352, 1962.
5. Wybregt, S. H., Reisner, S. H., Patel, R. K., Nellhaus, G., Cornblath, M.: The Incidence of Neonatal Hypoglycemia in a Nursery for Premature Infants. *J Pediatr* 64:796-802, June 1964.
6. Lucey, J. F.: Hyperbilirubinemia of Prematurity. *Pediatrics* 25:690-710, April 1960.
7. Craig, W. S.: Convulsive Movements Occurring In the First 10 Days of Life. *Arch Dis Child* 35:339-344, 1960.
- Burke, J. B.: The Prognostic Significance of Neonatal Convulsions. *Arch Dis Child* 29:342-345, 1954.
8. Blake, A. M., Langham, J., Collins, L. M., Reynolds, E. R.: Clinical Assessment of Apnoea-Alarm Mattress For Newborn Infants. *Lancet* 2:183-185, July 1970.

9. McKay, R. J.: The High-Risk Infant—Prematurity at Low Birth Weight. In *Textbook of Pediatrics*. Nelson, Vaughn McKay, eds. Philadelphia, 1969. (Usher quoted p. 365)
10. Peterson, H. G., Pendleton, M. E.: Contrasting Roentgenographic Pulmonary Patterns of the Hyaline Membrane at Fetal Aspiration Syndromes. *Am J Roentgenol Radium Ther Nuc Med* 74:800-817, November 1955.
11. Robinson, R. J.: Assessment of Gestational Age by Neurological Examination. *Arch Dis Child* 41:437-447, February 1966.
12. Haynes, D. M.: Premature Separation of the Placenta. *Am J Obstet Gynecol* 96:660-669, November 1966.
13. Golditch, I. M., Boyce, N. E.: Management of Abrupt Placentae. *JAMA* 212:288-293, April 13, 1970.
14. Niswander, K. R., Friedman, E. A., Hoover, D. B., Pretrowski, H., Westphal, M. C.: Fetal Morbidity following potentially anoxic obstetric conditions. *Am J Obstet Gynecol* 95:838-845, July 1966.

Postoperative Instructions for Hand Surgery

MORTON L. KASDAN, M.D. AND HAROLD E. KLEINERT, M.D.

Louisville, Kentucky

A simple and efficient method of clarifying postoperative instructions for hand surgery patients is presented.

Various preoperative and postoperative instructions for patients have been used in the past by many surgeons. Although the concept is widely known, the content of such instruction sheets is not generally available. We feel it is worthwhile to present an organized instruction card that we have used successfully for a number of years.

A clear understanding between the patient and physician is among the best ways to avoid complications as well as medical-legal actions. In many successful malpractice cases, confusion about postoperative care and potential problems have lead to serious problems. It is our practice to read these instructions with the patient and to document in the patient's record that these instructions were given, read over, and apparently understood by the patient.

On one side of the pocket-size card are the instructions (Table 1). The physician's name, address, and telephone number are on the opposite side.

Discussion

The use of the instruction card clarifies the patients' role in his postoperative care. It,

Table 1

Patient instructions for post-hand surgery care.

HAND SURGERY

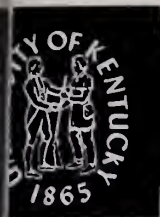
THE FOLLOWING INSTRUCTIONS SHOULD BE FOLLOWED CAREFULLY

1. Elevate the involved extremity on pillows at night.
2. Wear a sling for approximately one week following surgery.
3. Keep the dressing clean and dry.
4. At least 30 times a day raise the involved hand high above the head to prevent shoulder stiffness.
5. Carefully observe the exposed fingers for evidence of swelling and discoloration.
6. Take medication as directed.
7. If the prescribed pain medication does not provide adequate relief, please notify us.
8. If the dressing is uncomfortable or tight, call our office.
9. If you have a fever, please call.
10. Should you have any questions, please call.

therefore, provides (much to our patients' satisfaction) a handy reference which serves as a continuing written reminder and provides (to our satisfaction) a means of documenting what the patient was instructed to do. An unexpected function of the card has been its use as a teaching device for students and junior house staff.

References

1. Baker, T. J. and Gordon, H. L., Complications of Rhytidectomy. *Plastic and Reconstructive Surgery*, 40:31, 1967
2. Rees, T. D. and Wood-Smith, D., *Cosmetic Facial Surgery*, pp. 609, W. B. Saunders Company, Philadelphia 1973



GRAND ROUNDS



The University of Louisville School of Medicine

This Journal feature will be presented alternately by the University of Louisville and the University of Kentucky Departments of Medicine and Departments of Surgery. We hope to have these features revolve around subjects of immediate practical interest to the practicing physician; and, for those of us not able to attend grand rounds in the teaching centers as often we might, we hope this will represent a bit of a refresher course.

Necrotizing Enterocolitis*

NECROTIZING enterocolitis is a rare disease accounting for some one per cent of admissions to premature nurseries and two to three per cent of deaths in these infants.¹ The incidence of this disease appears to be on the increase. This increase, however, could be attributable to an increased awareness and recognition. The following case was treated by us at Children's Hospital in Louisville.

Case Presentation

A five-week premature infant with a birth weight of 4 lb 6 oz and an apgar score of 7 at one minute was born on August 26, 1973, at the Louisville General Hospital to a 21-year-old white woman (gravida III, para I, aborted 1) with no apparent cause for the prematurity. The baby was placed in an incubator following birth. Despite two apneic spells, she was placed on a formula which she tolerated satisfactorily. The baby progressed satisfactorily for three days when her abdomen became distended, she developed bloody diarrhea, and also had nausea and vomiting. A presumptive diagnosis of sepsis of unknown cause was made, and work-up included negative lumbar puncture and blood culture. Stool culture showed non-pathogenic *E. coli*; gastric and ear cultures grew *S. aureus*. Abdominal series showed gas within the wall of the small intestine—i.e., pneumatosis intestinalis. Meantime, the infant was placed on ampicillin 100 mg IV every 6 hours, methicillin 100 mg every 6 hours, and

gentamycin 2 mg IM every 8 hours. A nasogastric tube was placed on suction, and IV fluids were administered. Frequent examinations and abdominal x-ray studies were made. X-ray examination two days later showed possible resolution of the pneumatosis intestinalis. However, later that day the baby became more ill, and x-ray examination of the abdomen at that time showed free intraperitoneal air. Diagnosis of perforation of a viscus secondary to necrotizing enterocolitis was made and the patient was transferred to Children's Hospital operating room. On exploration she was found to have necrosis and perforation of proximal ileum, cecum, proximal ascending colon, and a small segment of mid-transverse colon. The necrotic segments and enough proximal and distal segments were resected to insure good blood supply to the bowel and an ileo-transverse colostomy was performed.

The patient tolerated this procedure fairly well. She had a bowel movement on the fourth postoperative day and was started on feeding on the fifth postoperative day. Complications included wound infection with cellulitis which responded well to suture removal and local therapy. At time of discharge, the child's weight was 5 lb 4 oz. She has continued to do well and shows satisfactory weight gain in subsequent clinic visits.

Discussion

Genersich in 1891² was the first to describe a four-day-old premature infant who developed vomiting cyanosis and abdominal distension. The infant died within 24 hours. Post-mortem examination revealed an area of inflammation with perforation of the ileum. Agerty et al in 1943³ were the first to perform a

*From the Departments of Surgery and Pediatrics, University of Louisville School of Medicine and Children's Division of Norton-Children's Hospitals, Inc., Louisville, Kentucky 40201.

successful operation on an infant with perforation of the ileum. The mortality of this disease is very high with only 15 survivors following operative intervention in these infants.¹

The etiology and pathogenesis of the disease remain obscure. The infants at risk are usually premature with perinatal problems, such as apneic spells, cyanosis, jaundice, or respiratory distress syndrome. Within this group of patients, there is a subgroup in whom the onset of necrotizing enterocolitis is preceded by one or more exchange transfusions and umbilical artery catheterization. In these patients, there is a tendency for involvement of colon, whereas in other cases, the ileum is the most common site of involvement.⁴

Blanc⁵ suggested that swallowing infected and amniotic fluid by infants born to mothers with amnionitis might cause enteritis in infants. Waldhausen and others⁶ recovered *P. aeruginosa* in four of six patients with necrotizing enterocolitis and considered this organism a possible etiologic factor. However, in other careful bacteriologic studies, species of *E. coli* have been recovered. Apparently, no correlation between necrotizing enterocolitis and any specific bacteriological agents exists.

The possibility that a Schwartzman reaction may be involved in the pathogenesis of this disease has been suggested, with the findings of multiple small vessel thrombi at the periphery of the lesions related to the formation of endotoxin by gram-negative bacteria acting on an intestinal wall which has been sensitized to these substances.⁷

Asphyxia, although a major factor in 81% of cases reported by Lloyd,⁸ does not explain cases in which there is no asphyxia; an additional mechanism must be involved to account for the actual development of gastrointestinal ischemia. The presence of ischemic perforation in those infants who do not show any evidence of asphyxia indicates that the gastrointestinal tract is the primary target of asphyxia. To explain these questions, Lloyd⁸ suggested that in the newborn subjected to stress, shock, or hypoxia, a reflex re-distribution of circulation may take place, analogous to that occurring in the seal during prolonged submergence. In the "diving reflex" blood is shunted from the less vulnerable areas (kidney, gut, and so forth) to heart and brain. A local hyperactivity of this

mechanism in the infant could be responsible for the production of ischemic necrosis in the bowel.

A combination of factors may contribute to the pathogenesis of necrotizing enterocolitis. The sites most affected are terminal ileum and colon.⁸ The diseased bowel is dilated and hemorrhagic or necrotic, depending upon the extent of involvement. The involved areas show considerable fragility with superficial ulcerations of mucosa and submucosal hemorrhages. The mucosa is covered with a shiny grayish coat of agglutinated inflammatory cells, fibrin, and necrotic epithelium forming a pseudomembrane. Multiple cystic areas are seen with intact serosa alone preventing a break through.

The most useful radiologic sign is the presence of pneumatosis intestinalis, a grave sign in infants. The phenomenon represents submucosal dissection and extension of intraluminal gas having gained access through a disrupted mucosa. Invasion by gas-forming organisms through a mucosal defect has also been suggested.

Upon diagnosis, in addition to the usual supportive measures, these patients should be placed on nasogastric suction, intravenous fluid, and antibiotics. Early surgical consultation is essential. Repeated x-ray examination of the abdomen should be obtained. The presence of pneumatosis alone is not an indication for operative intervention in these very frail infants, as a majority of these patients do not have perforation and heal. However, the presence of free air is an absolute indication for operative intervention, as this indicates perforation as well as deterioration in the general condition of the patient and sepsis. At operation, adequate lengths of bowel must be resected, beyond the obviously involved area.

Conclusion

Awareness of necrotizing enterocolitis in any sick or premature infants in addition to proper management of these very sick infants may reduce mortality which has been reported as high as 70%.⁸

H. FALLAZADEH, M.D.

B. SCHOO, M.D.

B. ANDREWS, M.D.

(References on Page 41)

SPECIAL ARTICLES

Report of the Ad Hoc Committee On Abortion Guidelines*

On January 23, 1973, the United States Supreme Court in two landmark cases established the right of women to terminate pregnancy by abortion. Because this decision was in contrast to current Kentucky Medical Association policy, the Board of Trustees appointed an ad hoc committee to recommend adjustments in KMA policy in order to maintain high standards of medical care and to safeguard the health of women undergoing abortion procedures.

The committee, therefore, feels that it is imperative to create a framework within which Kentucky women can receive abortion services in the Commonwealth with the assurance that the abortion procedure will be performed in safe medical settings which provide necessary ancillary services.

The committee takes full cognizance of the Supreme Court requirements that the state shall not interfere with the decision between a physician and his patient for or against abortion, nor use its powers to deny access to first trimester abortion services. The committee feels that abortions should be performed in a licensed hospital or in short stay facilities (or a doctor's office) that conform to the standards which were set up by the Board of Certificate of Need and Licensure of the Commonwealth of Kentucky for surgi-centers. A physician's office, if it meets the requirements set up by the Board of Certificate of Need and Licensure for surgi-centers, could be the site for abortions in the first trimester.

Recent experiences with abortions in other states have led the committee to feel that all dilatation and curettage, including suction curettage, up to the tenth week of pregnancy, can be safely performed in such short stay treatment facilities, i.e., surgi-centers or a properly equipped physician's office. The committee feels strongly that abortions should be performed only by a qualified licensed physician who is permitted to do these procedures in a hospital setting. Major gynecological surgical procedures such as hysterotomy, vaginal tubal ligation, intra-amniotic hypertonic saline infusion, or other procedures that may be expected to result in the termination of pregnancy in the second or third trimester must be performed in a licensed hospital, but not necessarily

on an in-patient basis, or in a short stay facility that conforms to the standards which were set up by the Board of Certificate of Need and Licensure for surgi-centers. These procedures should be performed only by someone who has special training in obstetrics and gynecology. In the third trimester a woman may have her pregnancy terminated only if her health or life is endangered by continuation of the pregnancy or in case of a proved fetal anomaly.

Criteria laid down by the Board of Certificate of Need and Licensure, or any other agency determining where abortions may be performed on an out-patient basis, must meet the following standards:

1. A permanent record must be kept for each patient.
2. It should include a pre-operative history and physical examination which is particularly directed to the identification of pre-existing or concurrent illnesses or drug sensitivities that may have a bearing on operative procedures or anesthesia.
3. A hematocrit and/or hemoglobin and Rh typing should be done on all patients and any other further laboratory work that would be indicated by the patient's medical history.
4. In the case of an unmarried pregnant minor seeking an abortion, the same rules should be applied in requiring the consent to the abortion of the person legally responsible for the minor as are followed in obtaining such consent for any medical operation.
5. Analgesia and anesthesia should accompany the procedure in accordance with generally established good medical practice.
6. There should be means to resuscitate and treat the unconscious patient and the patient with cardiovascular collapse.
7. It shall be the responsibility of the licensed physician performing an abortion to provide pre- and post-operative care in a traditional and continuing manner. This physician should operate under a transfer agreement insuring that any patient in whom complications develop will be accepted by a licensed hospital on an around the clock basis for emergency care.
8. Abortions should be done by standard and approved methods and recorded in the patient's record. Histologic examination of the tissues is not necessary.
9. The presence of pregnancy should be confirmed by an appropriate and recognized test for gonadotropin by either immuno-assay or bio-assay methods.

*The report on Abortion Guidelines and the KMA Abortion Resolution were presented to and adopted by the KMA House of Delegates on September 20, 1973.

The pregnancy must also be confirmed by examination by a licensed physician.

10. Pre- and post-abortion counselling should be a part of the services offered. Counselling should include alternatives to abortion, possible psychological evaluation, and contraceptive and sterilization information.

11. Each facility must offer (but not require) tests for cervical carcinoma and venereal disease to each patient.

12. All Rh negative patients should be given Rh immune globulin following the surgical procedure in order to prevent Rh sensitization.

13. No hospital, physician, or employee should be compelled to participate in abortions.

14. For the sake of clarity, the following defini-

tions were agreed upon by the committee:

- A. Abortion—Termination of pregnancy prior to the 20th week or before viability.
- B. Viability is the ability of the fetus to sustain life outside the uterus with usual measures after the 20th week of pregnancy.
- C. First trimester begins with the first day of the last menstrual period and ends 12 weeks later.
- D. Second trimester begins at the 13th week after the onset of the last menstrual period and goes through the 24th week.
- E. Third trimester is from the 25th week until delivery.

KMA Resolution on Abortion

"WHEREAS, that the following provisions were motivated by the decision of the United States Supreme Court relative to abortion, this resolution was necessitated. Now, therefore, be it

RESOLVED, that this resolution is in no way to be construed as implementing, condoning, or approving abortions at any stage of unborn human development but is rather an expression of determination of the House of Delegates of the Kentucky Medical Association to provide protection for the life of the unborn child whenever possible, and be it further

RESOLVED, that abortion on demand be discouraged at any time, and be it further

RESOLVED, that after the stage of viability, termination of pregnancy must be limited to those situations in which the life of the mother is jeopardized or a proven fetal anomaly exists, and be it further

RESOLVED, that any live infant must be accorded the same rights and the same care that would be given to an infant delivered by more traditional means, and be it further

RESOLVED, that the practice of using fetuses as experimental material is condemned, and be it further

RESOLVED, that no hospital, clinic, institution, or any other facility in this state should be required to admit any patient for the purpose of performing an abortion nor required to allow the performance of an abortion, and be it further

RESOLVED, that no person should be required to perform or participate directly or indirectly in an abortion procedure. No hospital, governing board, or any other person, firm, association, or group should terminate the employment or alter the position of, prevent or impair the practice or occupation of, or impose any other sanction or otherwise discriminate against any person who refuses to participate in an abortion procedure, and be it further

RESOLVED, that we recommend the Bureau of Vital Statistics, Department of Health, establish an abortion reporting form, which shall be used for the reporting of every abortion performed or prescribed in this State. Such forms shall include the following items in addition to such other information as may be necessary to complete this form:

- (1) The age of the pregnant woman;
- (2) The marital status of the pregnant woman
- (3) The location of the facility where the abortion was performed or prescribed;
- (4) The type of procedure performed or prescribed;
- (5) Complications, if any;
- (6) The pregnant woman's obstetrical history regarding previous pregnancies, abortions and live births;
- (7) The stated reason or reasons for which the abortion was requested;
- (8) The state and county of the pregnant woman's legal residence."



EDITORIALS



Gastrointestinal Endoscopy

ASTROSCOPY has come of age, but this fact is not generally fully appreciated because the old gastroscopy was with us for so many years. Doctor Schindler's 137 model optical semirigid gastroscope was the instrument par excellence until the development in recent years of fiberoptic gastroscopes which are extremely flexible and allow for sophisticated examinations such as brush cytology and biopsy of the mucosa under direct vision. Because the optical gastroscope did not permit biopsy and gave an incomplete view of the entire stomach, the examination time was brief and the equipment and personnel necessary were minimal.

A good fiberoptic instrument handled by a competent operator will afford excellent visualization and photography of the entire esophagus, stomach, duodenal bulb, and duodenal loop including visualization and direct-vision cannulation of the ampulla of Vater. A similar instrument makes capable a detailed and complete examination of the entire colon and terminal ileum, also with biopsy and cytology performance plus snaring and cautery functions for the intraluminal removal of pedunculated polyps.

There are two necessary fundamentals for this operation—a competent operator and an appropriate hospital space which is staffed by well trained personnel for assisting the operator and caring for the equipment. Fluoroscopic or x-ray capability is advisable for the colonoscopy.

The state's many excellent complete general hospitals are in various stages of developing fiberoptic endoscopic rooms and in some instances this development is hectic. One hospital will have expended the considerable amount of money for an equipped room with sufficient but inadequately trained personnel and with no operator, or with a physician who is willing but less than perfectly capable. This state is a fairly good one as long as the physician and personnel undertake adequate training, which is available and accessible in numerous centers in the country. Another hospital may have a competent endoscopist but be unwilling to "risk" the expenditure for equipment, room, and personnel because it feels insecure about being able to realize a reasonable financial return.

This last situation is not a good one. Fiberoptic endoscopy is becoming an established and standard procedure which is not only advisable but absolutely essential to proper gastrointestinal diagnosis and therapy. The hospital staff or administration which is reluctant to expend money on this "option" is making a serious mistake and serving its patients poorly. Gastrointestinal fiberoptic endoscopy is now an essential to standard medical and surgical care and the institution which fails to make every effort to institute and operate an endoscopy room now is neglecting to provide a good standard of care for its patients.

AEO

The Diagnosis of Renovascular Hypertension in a Young Adult

I enjoyed reading Doctor Kotchen's paper and appreciate being asked to comment, editorially, on the subject.

About 5-10% of the hypertensive population, or an estimated 1.5 to 3 million persons in the United States, would be diagnosed as having renovascular hypertension, if all patients with hypertension were studied. Only a small part of these will prove to have a surgically correctable disease; therefore, some screening has to be employed to select not only the person with the diagnosis, but also the person with surgically curable renovascular hypertension.

The case report mentioned in Doctor Kotchen's paper which pointed out the error of the usual screening tests is interesting and has prompted the following review of our own screening policies and opinions concerning their accuracy.

For reasons discussed below we prefer to study the following hypertensive patients in detail, which usually means at least a renal arteriography and if indicated, a bilateral renal vein renin collection: All hypertensive patients with (1) positive hypertensive IVP's or positive radioactive hippuran renograms; (2) an abdominal or flank bruit characteristic of renal artery stenosis; (3) a history of back or flank trauma resulting in hematuria; (4) a history of an uncontrollability on drugs, regardless of age; (5) in the pediatric and young adult age group; (6) Von Recklinghausen's neurofibromatosis thought chemically not to have pheochromocytoma. All of the above criteria hold, only if the patient is considered to be a surgical candidate should a correctable lesion be found.

Once the diagnosis of renovascular hypertension is made, the predictability of surgical success is based largely upon the absolute ratio of renal vein renin levels in the stenotic and contralateral sides, the lowest ratio being 1.5. Amsterdam, et al., were correct 93% of the time using this method. We have recently had one exception to the above rule in a 66-year-old with total atherosclerotic occlusion of one renal artery, uncontrollable medically, in which the renin production was the same in the two kidneys and who has an apparent cure by

saphenous vein aortic to renal artery bypass graft.

Several reports suggest that individual kidney function studies, as the Howard and Stamey tests, are not useful in indicating whether or not a lesion is responsible for hypertension. Because of this impression and the fact that these studies carry a considerable morbidity, we have not used them.

We have not operated the bilateral cases of fibromuscular disease unless lateralization has been shown by the renin studies, although others have done so with success.

The criteria for a positive rapid sequence IVP is one of the following: size difference in the kidneys greater than 1 cm.; inequality of the nephrogram phase; inequality of appearance time of contrast in the collecting system; inequality of concentration in the collecting system; delayed excretion without obvious obstruction on delay films. Using the above criteria, the percentage of false negative screening has been reported as high as 31% overall by Foster. Others have reported false negative screening results from 12 to 43% and false positive screening errors up to 12%.

The younger the patient being screened, the more likely the IVP is to be in error as a false negative.

The radioisotope renogram using tagged hippuran has been widely used to detect differences in function of the two kidneys. The renogram is characterized by three phases: the vascular or isotope uptake phase; the functional phase; and the excretory phase. The technique, standardization, and interpretation are outlined by Clark and others.

An excellent review of the subject by Maxwell presents the collected data of 14 authors and reveals an error of 15% false negative and 19% false positive renogram results.

Keane has suggested that the error can be diminished by using a scintillation camera system to produce a rapid sequence radiohippuran renal scan. The major advantage occurs in the patient with a segmental ischemic area in one kidney in which the remainder of the kidney functioned normally and would not be picked up by standard screening studies.

The factor of age in screening hypertensive patients for possible curable lesions, is important for several reasons. Berman, studying a group of unselected adult hypertensive patients, showed that 30% had positive arteriographic findings while Clazsman, studying unselected children, showed that 70% had positive findings on the renal arteriogram.

Once renovascular hypertension is found in the young it is most often due to fibromuscular disease and as such is curable up to 93% of cases as opposed to a much lower cure rate in the adult atherosclerotic.

Multiple other developmental anomalies may be present in children accounting for the hypertension, such as coarctation of any part of the aorta above the renals, or hypoplasia of any part of the arterial tree including unilateral renal artery hypoplasia. Wylie has reported the case of unilateral intrarenal arteriovenous malformation cured by nephrectomy. We have recently encountered a patient with congenital intrarenal aneurysms bilaterally, with severe hypertension and no lateralization of renin production, therefore, not thought to be a surgically treatable case.

Recently five cases of juxtaglomerular cell tumor (primary renin producing tumor) have been reported and all have been in the pediatric age group except one young adult. These could be missed by routine screening, short of arteriography and bilateral renin collection along with the usual studies to rule out primary aldosteronism.

Several cases of Von Recklinghausen's neurofibromatosis have been found to have vascular causes for their hypertension. These have included unilateral or bilateral renal artery stenosis, and coarctation of the abdominal or lower thoracic aorta. The high incidence of pheochromocytoma with this disease is well appreciated.

The high incidence of curable hypertension following back or flank trauma resulting in hematuria has been reported by Grant and Dominguez. The Cleveland Clinic group, reviewed 33 patients with this history and found

13 with severe hypertension. The etiology can be subcapsular hematoma with compression of renal parenchyma, fibrosis of renal parenchyma or unilateral renal artery, or segmental artery thrombosis. In this group of patients the treatment is more often nephrectomy than arterial reconstruction.

I believe Doctor Kotchen has reminded us of an important fact, which is true of most things in medicine, and that is that there are no "cookbook" ways to diagnose renovascular hypertension. Nor is there a way to predict with certainty which cases of renovascular hypertension can be cured by surgery. By using the methods of selection discussed, I believe the error can be kept very small but, nevertheless, an error will remain. Knowledge in the field has come a long way since Goldblatt's observations in 1934 and obviously has a long way to go yet.

BERT SPARROW, M.D., F.A.C.S.

Bibliography

1. Foster, J. and Dean R.: Chapter 8. Beebe H.G.: Complications in Vascular Surgery. J.B. Lippincott Co., 1973.
2. Amsterdam, E.A., et al.: Renal vein renin activity in the prognosis of surgery for renovascular hypertension. *Amer. J. Med.* Vol. 47, 1969.
3. Dustan, H.P.: Physiologic consequences of renal arterial stenosis. *N.E.J.M.* 281:1348, Dec., 1969.
4. Dustan, H.P., Editor: Renal artery stenosis and parenchymal diseases. (Chapt. 19) Renal hypertension. Edited by Page, I.H., and McCubbin, J.W. Chicago, Year Book Publishers, 1968.
5. Maxwell, M.H., et al.: Individual kidney function tests in renal hypertension. *J. Urol.* 100:384-394, 1968.
6. Stocbiat, J.R., et al.: Renal vein renin in various forms of renal hypertension. *The Lancet* pp. 1194, June 3, 1972.
7. Keane, M.J. and Schlegel, J.V.: The use of a scintillation camera system for screening of hypertensive patients. *J. of Urol.* 108:12, 1972.
8. Claysman, A.S., et al.: The role of renal arteriography in pediatric hypertension. *Radiology* 108:107-110, July, 1973.
9. Clark, M.D., et al.: The renogram in hypertension. *Radiology* 89:667-675, Oct., 1967.
10. Berman, L.B.: The role of nephrosclerosis in separate function tests. *Arch. Intern. Med.* 125:843, May, 1970.
11. Wylie, E.J.: Commenting on a paper by Joseph J. Kaufman presented at the Pacific Coast Surgical Association, February 20-23, 1972.
12. Kaufman, J.J., et al.: Renovascular hypertension in children: Report of seven cases treated surgically including two cases of renal autotransplantation. *Amer. J. Surg.* 124:149, Aug., 1972.
13. Conn, J.W., et al.: Primary reninism: hypertension, hyper-reninemia, and secondary aldosteronism due to renin-producing juxtaglomerular cell tumors. *Arch. Intern. Med.* 130:682-696, Nov., 1972.
14. Grad, E. and Rance, C.P.: Bilateral renal artery stenosis in association with neurofibromatosis (Recklinghausen's disease): Report of two cases. *J. of Ped.* 80(5):804-808, May, 1972.
15. Glenn, J., et al.: Coarctation of lower thoracic and abdominal aorta immediately proximal to celiac axis. *Surg. Gynec. Obstet.* 84:561, 1952.
16. Senning, A. and Johansen, L.: Coarctation of abdominal aorta. *J. Thorac. Cardio. Surg.* 40:517, 1960.
17. Grant, P.R., et al.: Renal trauma and hypertension. *Amer. J. Cardiol.* 27:173-6, 1971.
18. Dominguez, J. and DeWardener, H.E.: Stock car kidney. *Lancet* 1:125-6, 1972.



ORGANIZATION SECTION



KEMPAC Re-Elects Dr. Cooper, Announces 1973-74 Board

Carl Cooper, Jr., M.D., Bedford, was re-elected Chairman of the KEMPAC Board of Directors for the 1973-74 Organizational year at a meeting of the Board on November 8. Also re-elected was Assistant Treasurer, Bennett L. Crowder, M.D., Hopkinsville.

Elected as Vice-Chairman of the KEMPAC Board was John E. Trevey, M.D., Lexington. Mrs. Hoyt D. Gardner, Louisville, was named as Treasurer and Donald C. Barton, M.D., Corbin, was elected KEMPAC Secretary.

The following is a list of the KEMPAC Board members for the 1973-74 Organizational year:

First Congressional District

Stephen Burkhart, M.D., Salem
Bennett L. Crowder, M.D., Hopkinsville

Second Congressional District

John S. Oldham, M.D., Owensboro
Robert Robbins, M.D., Elizabethtown

Third Congressional District

John H. Doyle, M.D., Louisville
Sam A. Overstreet, M.D., Louisville

Fourth Congressional District

Carl Cooper, Jr., M.D., Bedford
Lee C. Hess, M.D., Florence

Fifth Congressional District

Donald C. Barton, M.D., Corbin
William O. Massey, M.D., Burnside

Sixth Congressional District

Dallas Hagg, M.D., Frankfort
John E. Trevey, M.D., Lexington

Seventh Congressional District

Harvey A. Page, M.D., Pikeville
Garner E. Robinson, M.D., Ashland

Members-At-Large

Mrs. Hoyt D. Gardner, Louisville
Mrs. William H. Keller, Frankfort
Mrs. William N. Richardson, Cadiz
Mrs. David B. Stevens, Lexington

Ky. Licensure Board Submits First Annual Report

The Kentucky State Board of Medical Licensure was created on September 1, 1972 and at that time assumed all medical and osteopathic licensure functions previously exercised by the State Board of Health. The Board's function is to regulate the medical and osteopathic professions by licensing all qualified doctors of medicine and osteopathy and,

at the same time, protect the people of the Commonwealth of Kentucky against any infringements of the Medical Practice Act, either by licensed physician or unlicensed individuals.

The Board met on six occasions during the past fiscal year and held two special meetings with the Kentucky Board of Nursing Education and Nurse Registration and with the Executive Committee of the Rural Kentucky Medical Scholarship Fund. A considerable amount of the Board's activity was spent drafting the supporting regulations for the amended Medical Practice Act.

For the first time, a mandatory annual registration was required of all physicians practicing in the state. This registration fee was put into effect in order to generate funds to operate the administrative function of the Medical Licensure Office.

During the year 349 medical licenses and nine osteopathic licenses were issued. Of this total, 170 licenses were issued by means of endorsement from another state licensing board and 188 were issued as a result of passing the State Board exam. A total of 322 candidates took the examination given in December and June of this past year. In addition, 104 limited licenses were renewed; and 82 temporary permits were issued.

This office is now in the process of preparing a new and improved State Medical Directory. This Directory will contain the names, addresses, and specialties of all licensed and registered doctors of medicine and osteopathy residing in Kentucky. In addition, for the first time, this publication will contain the laws and regulations of the state relating to the practice of medicine as amended by the 1972 Kentucky General Assembly. Each physician in the state will receive a complimentary copy of this booklet.

KMA Membership Secretary Dies

Mrs. Helen Y. Kambach, secretary of the KMA Membership Department for the last six years, died on November 26 at the age of 58.

Robert G. Cox, Executive Director of KMA, expressed the sympathy of the entire staff on Mrs. Kambach's death. He further announced that Mrs. Mary Hume, who had been working in the Membership Department on a temporary basis during Mrs. Kambach's illness, will be assuming full-time duties with the Association.

KMA To Co-Sponsor National Conference on Mental Health

The AMA-Southeast Regional Mental Health Conference, April 5-6, will be co-sponsored by six state medical associations, including Kentucky.

Held at the Marriott Hotel in Atlanta, the conference will deal with "Public and Private Mental Health Care—Quo Vadis?"

Commissioner of the Bureau for Health Services in Kentucky, Dale Farabee, M.D., will participate in the two-day program, which is acceptable for eight prescribed hours of credit by the American Academy of Family Practice.

There is a \$25 registration fee for the meeting. For further information, contact the AMA Department of Mental Health, 535 North Dearborn St., Chicago, Ill. 60610.

In Memoriam

JOHN W. ARMSTRONG, M.D.
Berea
1897-1973

John Wilbur Armstrong, M.D., 76, died on November 7. A 1924 graduate of the University of Vermont College of Medicine, Doctor Armstrong first came to Berea College as Associate College Physician in 1926 and continued his work there until his retirement in 1967. He has been an emeritus member of both the Kentucky and American medical associations since that time.

BERNARD SCHNEIDER, M.D.
Louisville
1909-1973

Bernard Schneider, M.D., died on November 18 at the age of 64. A 1933 graduate of the University of Louisville School of Medicine, Doctor Schneider practiced obstetrics and gynecology. He had also been active in the Boy Scouts, having served on local and national councils of that group. Doctor Schneider belonged to the Jefferson County Medical Society, as well as the Kentucky and American medical associations.

CHARLES E. HORNADAY, M.D.
Owensboro
1924-1973

Charles E. Hornaday, M.D., died on December 14 at the age of 49. A 1949 graduate of the University of Georgia School of Medicine, Doctor Hornaday was very active in the field of occupational health. He had served on the KMA Committee on Occupational Health for several years, having been chairman the last two years. Doctor Hornaday belonged to the Daviess County Medical Society and the Kentucky and American medical associations.

JOHN T. O'NEILL M.D.
Arlington
1918-1973

John T. O'Neill, M.D., died on November 5 at the age of 55. A family physician, he graduated from Creighton University School of Medicine. Doctor O'Neill was a member of the Kentucky and American medical associations.

AMA House Hears Dr. Roth, Awards Dr. Bowen

The AMA House of Delegates acted on 148 items of business during the 27th Clinical Convention of the Association in Anaheim, Calif., December 1-5. A summary of some of the actions taken by the House is in *The Journal* feature, "Delegates Deliberations" on page 11.

AMA President Russell B. Roth, M.D., in his address to the House, discussed some of the complex issues surrounding peer review and quality medical care. He said, "Ultimately, excellence of medical care is determined by the competence, the motivation, and the integrity of the physician who provides it."

Otis Bowen, M.D., the Governor of Indiana, was awarded the first Dr. Rodman E. Scheen and Thomas G. Scheen Benjamin Rush Bicentennial Award for Citizenship and Public Service. A complete report of the convention is printed in the December 10 issue of *American Medical News*.

Orientation Program Dropped

The KMA Orientation Program for new members, which has been held on a voluntary basis for the last two years, will be dropped from the 1974 Annual Meeting program, according to a recent decision of the KMA Executive Committee.

The Board of Trustees, in 1972, approved changing the program from a mandatory one to a voluntary program, and since that time registration for the session has dropped considerably (17 physicians attended the 1973 Orientation Program). New members of the Association will continue to be contacted by staff either by mail or in person.

Necrotizing Enterocolitis (continued from page 34) References

1. Stevenson, J.K., Graham, B.B., Oliver, T.K., and Goldenberg, V.E.: Neonatal Necrotizing Enterocolitis. *Am. J. Surg.* 118:260, 1969.
2. Genersich, A.: *Arch. Path. Anat.* 126:483, 1891. Quoted from reference 1.
3. Agerty, H.A., Ziserman, A.J., and Hollenberger, C.L.: A Case of Perforation of Ileum in a Newborn Infant with Operation and Survival. *J. Pediat.* 22:233, 1943.
4. Caster, W.R.: Spontaneous Perforation of the Bowel in the Newborn following Exchange Transfusion. *Canad. Med. Assoc. J.* 90:934, 1968.
5. Blanc, W.A.: Amniotic Infection Syndrome in Pathogenesis, Morphology, and Significance in Circumnatal Mortality. *Clin. Obstet. and Gynec.* 2:705, 1959.
6. Waldhausen, J.A., Herenden, T., and King, H.A.: Necrotizing Enterocolitis of the Newborn. *Surgery* 54:365, 1967.
7. Herman, R.E.: Perforation of Colon from Necrotizing Colitis in the Newborn. *Surgery* 58:436, 1965.
8. Lloyd, J.: The Etiology of Gastrointestinal Perforation in the Newborn. *J. Pediat. Surg.* 4:77, 1969.



The irritations of man's day are often reflected in his gut

The causes of irritable colon and the diarrheal symptoms that often accompany it can be as diverse as the systemic and emotional irritations a man is faced with daily.

Although the mucoid nature of stools and the occurrence of diarrheal episodes coincident with times of emotional stress may be valuable clues to the functional nature of the disorder, irritable colon must often be diagnosed by exclusion. Such diagnostic exploration takes time. Discovery of the nature of any emotional problems may take more. During that time, Lomotil® is an ideal agent for controlling diarrheal symptoms.

Lomotil tablets are small, easy to carry and easy to take. They act promptly and effectively. Secondary effects are relatively infrequent and once the first force of the diarrhea is controlled, maintenance is frequently effective on as little as one fourth of the initial dosage.

These same characteristics make Lomotil useful in controlling the diarrhea associated with gastroenteritis, antibiotic therapy and acute infections.



IMPORTANT INFORMATION: This is a Schedule V substance by Federal law; diphenoxylate HCl is chemically related to meperidine. In case of overdosage or individual hypersensitivity, reactions similar to those after meperidine or morphine overdosage may occur; treatment is similar to that for meperidine or morphine intoxication (prolonged and careful monitoring). Respiratory depression may recur in spite of an initial response to Nalline® (nalorphine HCl) or may be evidenced as late as 30 hours after ingestion. LOMOTIL IS NOT AN INNOCUOUS DRUG AND DOSAGE RECOMMENDATIONS SHOULD BE STRICTLY ADHERED TO, ESPECIALLY IN CHILDREN. THIS MEDICATION SHOULD BE KEPT OUT OF REACH OF CHILDREN.

Indications: Lomotil is effective as adjunctive therapy in the management of diarrhea.

Contraindications: In children less than 2 years, due to the decreased safety margin in younger age groups, and in patients who are jaundiced or hypersensitive to diphenoxylate HCl or atropine.

Warnings: Use with caution in young children, because of variable response, and with extreme caution in patients with cirrhosis and other advanced hepatic disease or abnormal liver function tests, because of possible hepatic coma. Diphenoxylate HCl may potentiate the action of barbiturates, tranquilizers and alcohol. In theory, the concurrent use with monoamine oxidase inhibitors could precipitate hypertensive crisis.

Usage in pregnancy: Weigh the potential benefits against possible risks before using during pregnancy, lactation or in women of childbearing age. Diphenoxylate HCl and atropine are secreted in the breast milk of nursing mothers.

Precautions: Addiction (dependency) to diphenoxylate HCl is theoretically possible at high dosage. Do not exceed recommended dosages. Administer with caution to patients receiving addicting drugs or known to be addiction prone or having a history of drug abuse. The subtherapeutic amount of atropine is added to discourage deliberate overdosage; strictly observe contraindications, warnings and precautions for atropine; use with caution in children since signs of atropinism may occur even with the recommended dosage.

Adverse reactions: Atropine effects include dryness of skin and mucous membranes, flushing and urinary retention. Other side effects with Lomotil include nausea, sedation, vomiting, swelling of the gums, abdominal discomfort, respiratory depression, numbness of the extremities, headache, dizziness, depression, malaise, drowsiness, coma, lethargy, anorexia, restlessness, euphoria, pruritus, angioneurotic edema, giant urticaria and paralytic ileus.

Dosage and administration: Lomotil is contraindicated in children less than 2 years old. Use only Lomotil liquid for children 2 to 12 years old. For ages 2 to 5 years, 4 ml. (2 mg.) t.i.d.; 5 to 8 years, 4 ml. (2 mg.) q.i.d.; 8 to 12 years, 4 ml. (2 mg.) 5 times daily; adults, two tablets (5 mg.) t.i.d. to two tablets (5 mg.) q.i.d. or two regular teaspoonfuls (10 ml., 5 mg.) q.i.d. Maintenance dosage may be as low as one fourth of the initial dosage. Make downward dosage adjustment as soon as initial symptoms are controlled.

Overdosage: Keep the medication out of the reach of children since accidental overdosage may cause severe, even fatal, respiratory depression. Signs of overdosage include flushing, lethargy or coma, hypotonic reflexes, nystagmus, pinpoint pupils, tachycardia and respiratory depression which may occur 12 to 30 hours after overdose. Evacuate stomach by lavage, establish a patent airway and, when necessary, assist respiration mechanically. Use a narcotic antagonist in severe respiratory depression. Observation should extend over at least 48 hours.

Dosage forms: Tablets, 2.5 mg. of diphenoxylate HCl with 0.025 mg. of atropine sulfate. Liquid, 2.5 mg. of diphenoxylate HCl and 0.025 mg. of atropine sulfate per 5 ml. A plastic dropper calibrated in increments of ½ ml. (total capacity, 2 ml.) accompanies each 2-oz. bottle of Lomotil liquid.

SEARLE

Searle & Co.

San Juan, Puerto Rico 00936

Address medical inquiries to:

G. D. Searle & Co., Medical Department
Box 5110, Chicago, Illinois 60680

352

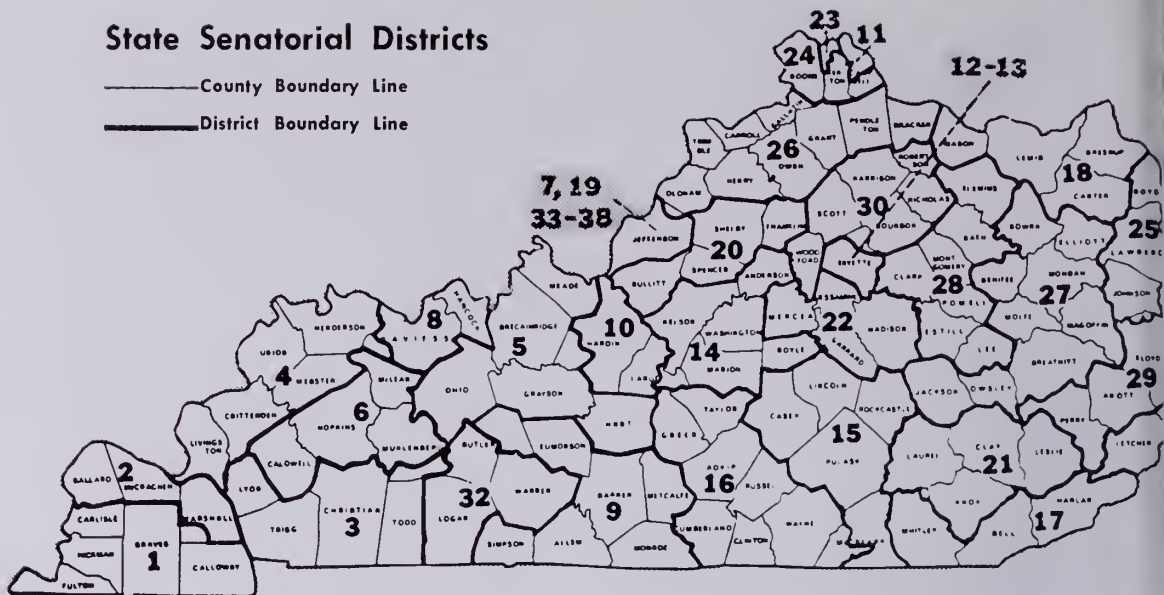
Lomotil®

TABLETS/LIQUID

Each tablet and each 5 ml. of liquid contain:
diphenoxylate hydrochloride . . . 2.5 mg.
(Warning: May be habit forming)
atropine sulfate 0.025 mg.

Keeps care of the gut issue irritable colon

State Senatorial Districts



Ky. Senate and House Rosters Listed for 1974 Assembly

In order that you might have a complete list of the 38 Senators and 100 Representatives who will participate in the 1974 Kentucky General Assembly, *The Journal* is once again printing their names, home towns, and districts, and including maps to show the counties they will serve.

There are 29 Democratic Senators and 9 Republicans. There will be 13 new members in the 1974 Senate. The House is composed of 80 Democrats and 20 Republicans. Thirty-five Representatives are new to the House.

KENTUCKY GENERAL ASSEMBLY 1974 Senate Roster

District	Home County	Senators
1	Graves	Carroll Hubbard, Jr. (D), Mayfield
2	McCracken	Tom Garrett (D), Paducah
3	Christian	Pat M. McCuiston (D), Trenton
4	Henderson	William L. Sullivan (D), Henderson
5	Grayson	Earl R. Glenn (D), Leitchfield
6	Hopkins	Kenneth O. Gibson (D), Madisonville
7	Jefferson	William L. Quinlan (D), Louisville
8	Daviess	Delbert S. Murphy (D), Owensboro
9	Barren	Walter A. Baker (R), Glasgow
10	Hardin	Joseph W. Prather (D), Vine Grove
11	Campbell	Donald L. Johnson (R), Newport
12	Fayette	Joe Graves (R), Lexington
13	Fayette	Michael R. Moloney (D), Lexington
14	Nelson	William R. Gentry, Jr. (D), Bardstown
15	Pulaski	Norman E. Farris (R), Somerset
16	Adair	Doug Moseley (R), Columbia
17	Bell	Denver C. Knuckles (R), Middlesboro
18	Greenup	Nelson Robert Allen (D), Russell

19	Jefferson	Tom Mobley (D), Louisville
20	Franklin	Tom Easterly (D), Frankfort
21	Laurel	Gene Huff (R), London
22	Madison	John Faris Lackey (D), Richmond
23	Kenton	August Sheehan (D), Covington
24	Kenton	Clyde W. Middleton (R), Covington
25	Johnson	Roy R. Ross (D), Louisa
26	Henry	John M. Berry, Jr. (D), New Castle
27	Morgan	Joe D. Stacy (D), West Liberty
28	Lee	Walter Strong (D), Beattyville
29	Knott	John C. Cornett (D), Hindman
30	Woodford	Thomas M. Ward (D), Versailles
31	Pike	Kelsey E. Friend (D), Pikeville
32	Warren	Frank Miller (D), Bowling Green
33	Jefferson	Georgia Davis Powers (D), Louisville
34	Jefferson	Daisy Thaler (D), Louisville
35	Jefferson	Lacey T. Smith (D), Louisville
36	Jefferson	Eugene P. Stuart (R), Prospect
37	Jefferson	Danny Yocom (D), Louisville
38	Jefferson	Nicholas Baker (D), Louisville

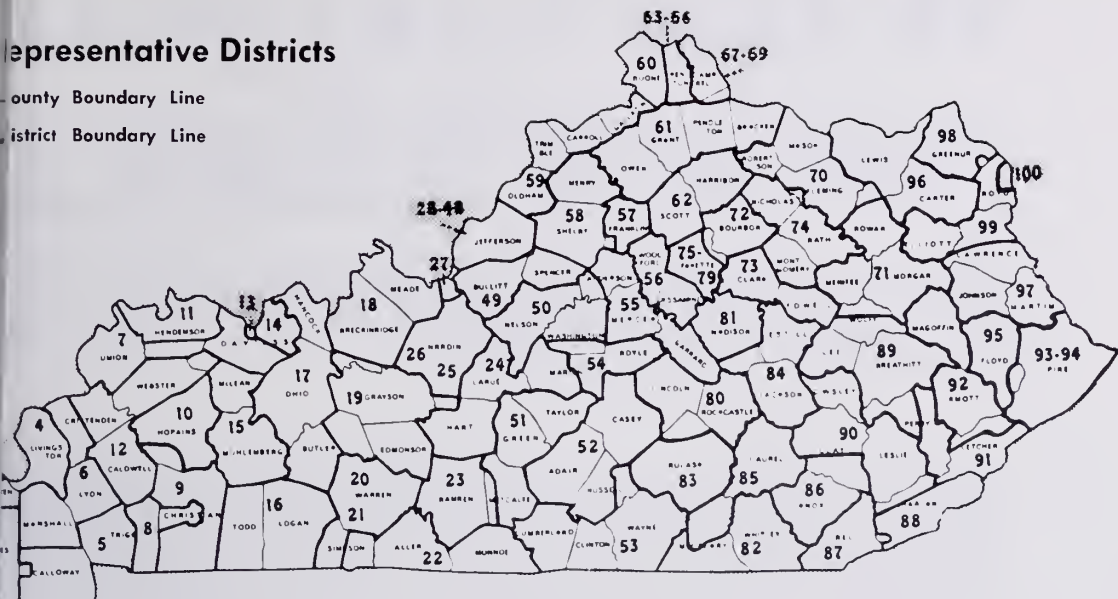
1974 House Roster

District	Home County	Representatives
1	Carlisle	Ralph E. Graves (D), Bardwell
2	Graves	Lloyd Clapp (D), Wingo
3	McCracken	Fred H. Morgan (D), Paducah
4	Livingston	George F. Harris (D), Salem
5	Calloway	Kenneth D. Imes (D), Murray
6	Marshall	Richard H. Lewis (D), Benton
7	Union	Joseph McBride (D), Waverly
8	Christian	W. Edward Whitfield (D), Hopkinsville
9	Christian	James E. Bruce (D), Hopkinsville
10	Hopkins	W. Michael Troop (D), Madisonville
11	Henderson	Gross C. Lindsay (D), Henderson
12	Webster	Joe Head (D), Providence
13	Daviess	Charles S. Wible (D), Owensboro
14	Daviess	Donald J. Blandford (D), Philpot
15	Muhlenberg	Billy R. Paxton (D), Central City
16	Logan	Lewis Foster (D), Lewisburg
17	Butler	Willard C. Allen (R), Morgantown
18	Meade	Alec G. Stone (D), Brandenburg

Representative Districts

County Boundary Line

District Boundary Line



Grayson	G. W. Vincent (D), Leitchfield	59	Carroll	W. J. Loudon (D), Carrollton
Warren	Nicholas Z. Kafoglis, M.D. (D), Bowling Green	60	Boone	William K. McBee (D), Burlington
Warren	Edward G. Brown (D), Bowling Green	61	Grant	Clay Crupper (D), Dry Ridge
Monroe	Carl Bowles (R), Tompkinsville	62	Harrison	John Swinford (D), Cynthiana
Barren	Bobby H. Richardson (D), Glasgow	63	Kenton	W. L. Schmaedecke (R), Covington
Marion	Sam B. Thomas (D), Lebanon	64	Kenton	Phillip E. King (D), Covington
Hardin	Sam H. Watkins (D), Elizabethtown	65	Kenton	John J. Isler (D), Covington
Hardin	Virgil L. Pearman (D), Radcliffe	66	Kenton	Elmer Dietz (D), Ludlow
Jefferson	Archie N. Romines, Sr. (D), Valley Station	67	Campbell	Terry L. Mann (D), Newport
Jefferson	James R. Dunn (D), Louisville	68	Campbell	William Donnermeyer (D), Bellevue
Jefferson	Al Bennett (D), Louisville	69	Mason	Arthur L. Schmidt (R), Cold Spring
Jefferson	Thomas J. Burch (D), Louisville	70	Mason	Mitchel B. Denham, M.D. (D), Maysville
Jefferson	Mark D. O'Brien (D), Louisville	71	Morgan	Woodford F. May (D), Woodsbend
Jefferson	E. Bruce Blythe, Jr. (R), Louisville	72	Bourbon	Brooks Hinkle (D), Paris
Jefferson	Bob Benson (D), Louisville	73	Clark	Glenn White (D), Winchester
Jefferson	David K. Karem (D), Louisville	74	Bath	Adrian Arnold (D), Mt. Sterling
Jefferson	Carl A. Nett (D), Louisville	75	Fayette	William G. Kenton (D), Lexington
Jefferson	Frank X. Quickert, Jr. (D), Louisville	76	Fayette	Steven L. Beshear (D), Lexington
Jefferson	M. Jerry Kleier (D), Louisville	77	Fayette	David L. VanHorn (D), Lexington
Jefferson	Richard Chandler (D), Louisville	78	Fayette	Larry J. Hopkins (R), Lexington
Jefferson	Lawrence Ray Maynard (D), Louisville	79	Fayette	Don W. Stephens (D), Lexington
Jefferson	George R. Siemens (D), Louisville	80	Lincoln	Wm. Harold DeMarcus (D), Stanford
Jefferson	Mae Street Kidd (D), Louisville	81	Madison	Dwight Wells (D), Richmond
Jefferson	Charlotte S. McGill (D), Louisville	82	Whitley	Clifford M. Sharpe (R), Williamsburg
Jefferson	Norbert Blume (D), Louisville	83	Pulaski	Leonard R. Hislope (R), Somerset
Jefferson	James B. Yates (D), Louisville	84	Estill	Sam Brewer, Jr. (R), Irvine
Jefferson	Dottie Priddy (D), Louisville	85	Laurel	Albert Robinson (R), Pittsburg
Jefferson	Robert F. Hughes (D), Louisville	86	Knox	James H. White, Jr. (D), Barbourville
Jefferson	Edward L. Holloway (R), Middletown	87	Bel	George E. Stewart (D), Pineville
Jefferson	Louis R. Guenther, Jr. (R), Louisville	88	Harlan	Glenn R. Freeman (D), Cumberland
Bullitt	Thomas B. Givhan (D), Shepherdsville	89	Breathitt	John Raymond Turner (D), Jackson
Nelson	John Hurst (D), Bloomfield	90	Leslie	Clay Gay (R), Hyden
Taylor	Herman W. Ratliff (R), Campbellsville	91	Letcher	Hoover Dawahare (D), Whitesburg
Casey	Raymond Overstreet (R), Liberty	92	Knot	Sidney Adams (D), Littcarr
Wayne	Randolph Smith (R), Monticello	93	Pike	N. Clayton Little (D), Hartley
Boyle	Joe Clarke (D), Danville	94	Pike	William Lee Roberts (D), Pikeville
Mercer	Forest Sale (D), Harrodsburg	95	Floyd	W. J. Reynolds (D), Allen
Woodford	Victor Hellard, Jr. (D), Versailles	96	Carter	James A. Davis (R), Grayson
Franklin	C. M. Hancock (D), Frankfort	97	Martin	L. T. Hardin (R), Inez
Henry	David G. Mason (D), Eminence	98	Greenup	W. Terry McBrayer (D), Greenup
		99	Elliott	Ray O. Brown (D), Sandy Hook
		100	Boyd	Charles R. Holbrook, III (R), Ashland

What's on you patient's face..

may be more important than
his chief complaint

Patient P.T.* seen on 3/29/67 shows typical lesions of moderately severe keratoses. Note residual scarring on ridge of nose from previous cryosurgical and electrosurgical procedures.



Patient P.T.* seen on 6/12/67, seven weeks after discontinuation of 5% FU cream. Reaction has subsided. Residual scarring not seen except that due to prior surgery. Inflammation has cleared and face is clear of keratotic lesions.

*Data on file,
Hoffmann-La Roche
Inc., Nutley, N.J



the lesions on his face
are solar/actinic—
called "senile" keratoses...
and they may be premalignant.

Actinic or senile keratoses

Lesions may be called by several names, but they can be identified by the following characteristics: a typical lesion is flat or slightly elevated, of a pink or reddish color, papular, dry, rough, adherent and poorly defined. They commonly occur as multiple lesions, chiefly on the exposed portions of the skin.

Efficacy of therapy— Activity of response

Several days of therapy with Efudex® (fluorouracil), a reaction may begin to appear in the area of the lesions; the reaction usually reaches its height of unsightliness and discomfort within two weeks, declining after discontinuation of therapy. This reaction occurs in affected areas since the response is so predictable, lesions that do not respond should be biopsied.

Acceptable results

Therapy with Efudex provides highly favorable cosmetic results. Incidence of scarring is low. This is particularly important with multiple facial lesions. Efudex should be applied with care near the eyes, nose and mouth.

Before prescribing, please consult complete product information, a summary of which follows:

Indications: Multiple actinic or solar keratoses.

Contraindications: Patients with known hypersensitivity to any of its components.

Warnings: If occlusive dressing used, may increase inflammatory reactions in adjacent normal skin. Avoid prolonged exposure to ultraviolet rays. Safe use in pregnancy not established.

Precautions: If applied with fingers, wash hands immediately. Apply with care near eyes, nose and mouth. Lesions failing to respond or recurring should be biopsied.

Adverse Reactions: Local—pain, pruritus, hyperpigmentation and burning at application site most frequent; also dermatitis, scarring, soreness and tenderness. Also reported—insomnia, stomatitis, suppuration, scaling, swelling, irritability, medicinal taste, photosensitivity, lacrimation, leukocytosis, thrombocytopenia, toxic granulation and eosinophilia.

Dosage and Administration: Apply sufficient quantity to cover lesion twice daily with nonmetal applicator or suitable glove. Usual duration of therapy is 2 to 4 weeks.

How Supplied: Solution, 10-ml drop dispensers—containing 2% or 5% fluorouracil on a weight/weight basis, compounded with propylene glycol, tris(hydroxymethyl)-aminomethane, hydroxypropyl cellulose, parabens (methyl and propyl) and disodium edetate.

Cream, 25-Gm tubes—containing 5% fluorouracil in a vanishing cream base consisting of white petrolatum, stearyl alcohol, propylene glycol, polysorbate 60 and parabens (methyl and propyl).



Roche Laboratories
Division of Hoffmann-La Roche Inc.
Nutley, N.J. 07110

This patient's lesions were resolved with

Efudex®

Fluorouracil/Roche®

5% cream/solution...a Roche exclusive

★
Specialized Service
IN
PROFESSIONAL LIABILITY INSURANCE
is a high mark of distinction

THE
MEDICAL PROTECTIVE COMPANY
FORT WAYNE, INDIANA

Professional Protection Exclusively since 1899

LOUISVILLE OFFICE: Riley Lassiter, Representative

Suite 260

Shelbyville Road Mall Office Center

400 Sherburn Lane

Telephone: (Area Code 502) 895-5501

Mailing Address: P.O. Box 20065, Louisville, Kentucky 40220



EYES RIGHT!
...to SOUTHERN OPTICAL

LOUISVILLE Southern Optical Bldg. — 640 S. 4th
Contact Lenses — 640 S. 4th
Medical Towers Bldg., Floyd & Gray
Doctors Office Bldg., Liberty at Floyd
Medical Arts Bldg., 1169 Eastern Parkway
Professional Bldg. East, 3101 Breckinridge Lane
Medix Bldg. — Adj. S.S. Mary & Elizabeth Hosp.
ST. MATTHEWS 313 Wallace Center and 108 McArthur Drive
NEW ALBANY Professional Arts Bldg., 1919 State Street
BOWLING GREEN 524 East Main Street
OWENSBORO Doctors Bldg., 1001 Center Street



*Southern
Optical*

CHARGE ACCOUNTS
INVITED
BankAmericard
Master Charge

The Rx that says "Relax"

BUTISOL Sodium provides highly predictable sedative effect: minor dosage adjustments are usually all that's needed to produce the desired degree of sedation. (With 3 dosage forms and 4 strengths to make adjustments easy.)

BUTISOL Sodium offers prompt, smooth, relatively non-cumulative action: begins to work within 30 minutes... yet, because of its intermediate rate of metabolism, generally has neither a "roller-coaster" nor a "hangover" effect.

BUTISOL Sodium is remarkably well tolerated: a 30-year safety record assures you that there is little likelihood of unexpected reactions.

BUTISOL Sodium saves your patients money: costs less than half as much as most commonly prescribed sedative tranquilizers.*

These are four good reasons for prescribing BUTISOL Sodium for the many patients who need to have the pace set just a little slower. Its gentle daytime sedative action is often all that's needed to help the usually well-adjusted patient cope with temporary stress.

*Based on surveys of average daily prescription costs.



Butisol  **SODIUM**[®]
(SODIUM BUTABARBITAL)

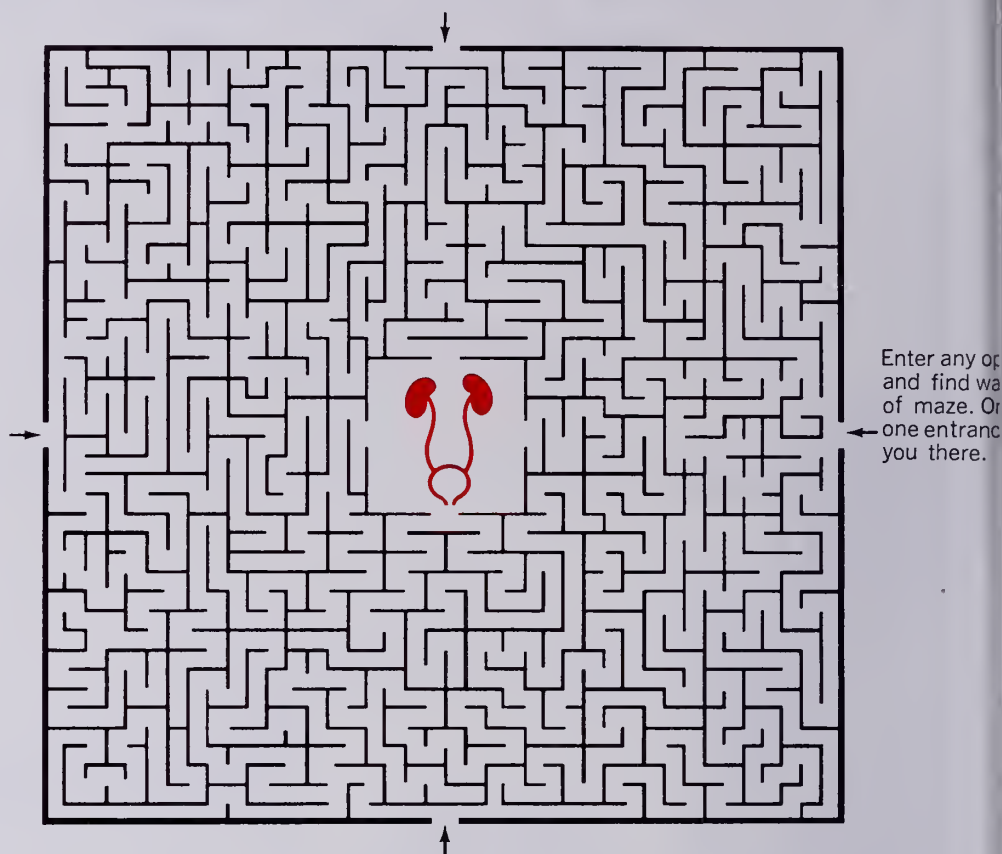
Contraindications: Porphyria, sensitivity to barbiturates, or susceptibility to dependence on sedative-hypnotics.

Warning: May be habit forming. **Precautions:** Exercise caution in: moderate to severe hepatic disease; withdrawal in drug dependence or the taking of excessive doses over a long period, to avoid withdrawal symptoms; elderly or debilitated patients, to avoid possible marked excitement or depression; use with alcohol or other CNS depressants, because of combined effects. **Adverse Reactions:** Drowsiness at daytime sedative dose levels, skin rashes, "hangover" and gastrointestinal disturbances are seldom seen. **Usual Adult Dosage:** For daytime sedation, 15 mg. to 30 mg. t.i.d. or q.i.d. For hypnosis, 50 mg. to 100 mg. **Available as:** Tablets, 15 mg., 30 mg., 50 mg., 100 mg.; Elixir, 30 mg. per 5 cc. (alcohol 7%). BUTICAPS[®] [Capsules BUTISOL SODIUM (sodium butabarbital)] 15 mg., 30 mg., 50 mg., 100 mg.

McNEIL

McNeil Laboratories, Inc., Fort Washington, Pa. 19034

Short-term therapy is no shortcut



The case for adequate length of therapy

In the insidious, common and often stubborn urinary tract infections, duration of therapy is not standardized. Because renal damage in many patients is believed to result from repeated urinary tract infections in childhood, one pediatrician has stated that a rational approach to treatment includes more than a perfunctory prescription of an antibacterial agent.¹

The first 48 hours and after...

To ensure adequate therapy, one expert² proceeds as follows: an initial culture and one after 48 hours. If the antibacterial used has been effective, the urine will be clear of pathogens after 24 to 48 hours. However, urine should be recultured and any persistence of original pathogens indicates that another drug be used. On the other hand, if urine is found to be sterile, the same drug is continued for two weeks. Then urine is recultured starting a week after the last drug dose, and cultures are continued monthly for three months, then every three months for a year, and finally, every four months for several years.²

Another authority³ notes that initial short-term therapy without careful follow-up can lead to trouble, as reflected by the high relapse rate. He treats an initial urinary tract infection with a sulfa drug after taking a urine culture. If *Escherichia coli* is found—and it is in 70 to 80 per cent of cases—he continues full dosage for 21 days. Five to 10 days after cessation of therapy, he recultures and takes a colony count. If urine is sterile, he recultures at three and six months.

Measurement of success

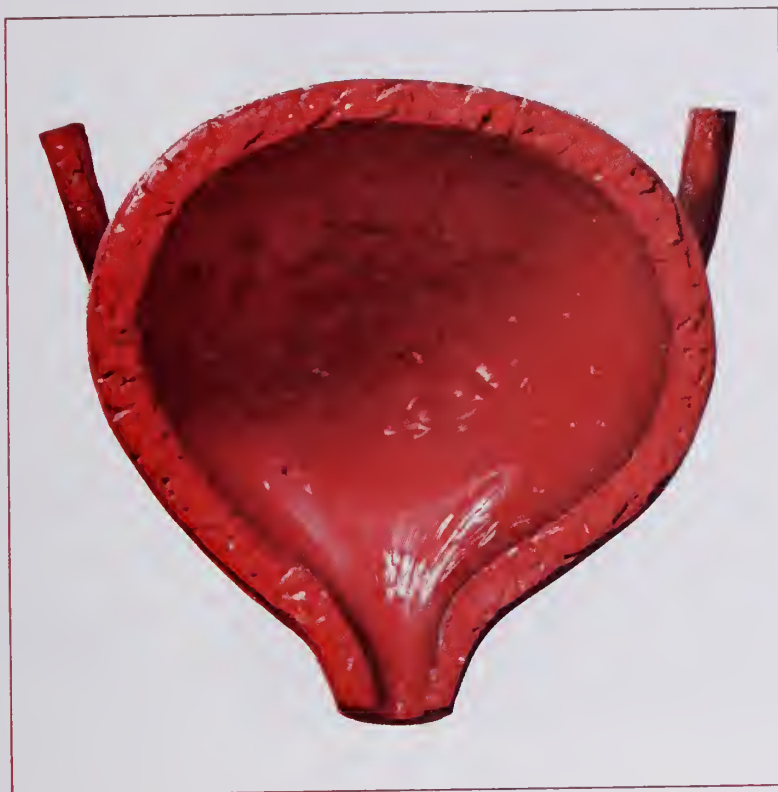
For success in the treatment of urinary tract infection, the urine must be kept free of bacteria for prolonged periods until the focus of infection in the tissue has been eradicated.³ This may take months or years when the infection is chronic or persistent. Criteria for successful therapy of a drug are regarded as absence of symptoms and absence of pyuria and bacteriuria.³ One authority defines bacteriuria as a count of at least 100,000/ml of the organism in two consecutive clean-voided urine samples.

The nature of the infection and the length of therapy

Long-term follow-up is essential, a clinician treats recurrent infections for one to two years post-infection. Persistent, symptomless bacteriuria usually calls for more drastic procedures to find the site of infection, because underlying abnormality predisposing to urinary tract infection must be detected and corrected—otherwise therapy is futile.⁵ Upper urinary tract infection generally requires longer therapy than infection of the lower urinary tract.

In acute, simple, first infections of a symptomatic type, the pathogens are nearly always *E. coli* or *Proteus mirabilis*.⁵

References: 1. Normand, I. C. S.: *Practitioner*, 204:91, 1968. 2. H. H.: *Hosp. Med.*, 4:73, 1968. 3. Lampe, W. T. II: *J. Am. Med. Soc.*, 16:798, 1968. 4. Petersdorf, R. G., and Turck, M.: *G. I.*, 130, 1965. 5. Benner, E. J.: *Med. Times*, 98:(2) 95, 1970.



The case for Gantanol® (sulfamethoxazole)

sceptible organisms most often
d

anol® (sulfamethoxazole) is effective against susceptible strains of *E. coli* and *Proteus mirabilis*. Frequently, *Proteus vulgaris*—pathogens apt to be the mixed bacterial flora of recurrent and chronic UTI or pyelonephritis.

antibacterial blood/urine levels

the initial 2-Gm adult dose, therapeutic blood levels are usually reached in from 2 to 3 hours and maintained with either of the two dosage regimens—tablets or suspension. And, Gantanol suspension means up to 12 hours of antibacterial activity, relieving the patient's having to disturb his sleep for medication. More severe infections may require longer therapy.

Effective in certain nonobstructed and recurrent urinary tract infections

In nonobstructed chronic and recurrent cystitis or pyelitis develops more commonly in the elderly and in women, and response to Gantanol (sulfamethoxazole) is usually satisfactory. The usual precautions in prescribing therapy should be observed, including assurance of adequate fluid intake, frequent c.b.c.'s and urinalyses with microscopic examination.

Make the therapy suit the infection

In most urinary tract infections the *b.i.d.* schedule will usually suffice, but therapy must be maintained long enough to ensure eradication of pathogens. Mounting evidence in current medical literature suggests a minimum of 14 days of continuous therapy.* Adequate treatment for a sufficient time may also help prevent possible kidney damage. Gantanol is generally well tolerated with relative freedom from complications. The most common side effects include nausea, vomiting and diarrhea. Prescribe Gantanol tablets or the pleasant-tasting suspension.

*Data on file, Hoffmann-La Roche Inc., Nutley, N. J.

In nonobstructed cystitis due to susceptible organisms

Gantanol[®] B.I.D. (sulfamethoxazole)

Basic Therapy



Roche Laboratories
Division of Hoffmann-La Roche Inc.
Nutley, N. J. 07110

Please see following page for summary of product information.

Before prescribing, please consult complete product information, a summary of which follows:

Indications: Acute, recurrent or chronic nonobstructed urinary tract infections (primarily pyelonephritis, pyelitis and cystitis) due to susceptible organisms. **Note:** Carefully coordinate *in vitro* sulfonamide sensitivity tests with bacteriologic and clinical response; add aminobenzoic acid to follow-up culture media. The increasing frequency of resistant organisms limits the usefulness of antibacterials including sulfonamides, especially in chronic or recurrent urinary tract infections. Measure sulfonamide blood levels as variations may occur; 20 mg/100 ml should be maximum total level.

Contraindications: Sulfonamide hypersensitivity; pregnancy at term and during nursing period; infants less than two months of age.

Warnings: Safety during pregnancy has not been established. Sulfonamides should not be used for group A beta-hemolytic streptococcal infections and will not eradicate or prevent sequelae (rheumatic fever, glomerulonephritis) of such infections. Deaths from hypersensitivity reactions, agranulocytosis, aplastic anemia and other blood dyscrasias have been reported and early clinical signs (sore throat, fever, pallor, purpura or

jaundice) may indicate serious blood disorders. Frequent CBC and urinalysis with microscopic examination are recommended during sulfonamide therapy. Insufficient data on children under six with chronic renal disease.

Precautions: Use cautiously in patients with impaired renal or hepatic function, severe allergy, bronchial asthma; in glucose-6-phosphate dehydrogenase-deficient individuals in whom dose-related hemolysis may occur. Maintain adequate fluid intake to prevent crystalluria and stone formation.

Adverse Reactions: *Blood dyscrasias* (agranulocytosis, aplastic anemia, thrombocytopenia, leukopenia, hemolytic anemia, purpura, hypoprothrombinemia and methemoglobinemia); *allergic reactions* (erythema multiforme, skin eruptions, epidermal necrolysis, urticaria, serum sickness, pruritus, exfoliative dermatitis, anaphylactoid reactions, periorbital edema, conjunctival and scleral injection, photosensitization, arthralgia and allergic myocarditis); *gastrointestinal reactions* (nausea, emesis, abdominal pains, hepatitis, diarrhea, anorexia, pancreatitis and stomatitis); *CNS reactions* (headache, peripheral neuritis, mental depression, convulsions, ataxia, hallucinations, tinnitus, vertigo and insomnia); *miscellaneous reactions* (drug fever, chills, toxic nephrosis with

oliguria and anuria, periarteritis and L.E. phenomenon). Due to chemical similarities with sorbents, diuretics (acetazolamide) and oral hypoglycemic agents, sulfonamides have caused rare instances of goiter production, diuresis and hypoglycemia as well as thyroid malignancy following long-term administration. Cross-sensitivity with these agents may exist.

Dosage: **Systemic sulfonamides are contraindicated in infants under 2 months of age** (except adjunctive therapy with pyrimethamine in congenital toxoplasmosis).

Usual adult dosage: 2 Gm (teaspoon) initially, then 1 Gm b.i.d. depending on severity of infection.

Usual child's dosage: 0.1 Gm (teaspoon) / 20 lbs of body weight then 0.25 Gm / 20 lbs b.i.d. Maximum dose should not exceed 75 mg per day.

Supplied: Tablets, 0.5 Gm methoxazole; Suspension, 0.5 Gm methoxazole / teaspoonful.



Roche Laboratories
Division of Hoffman
Nutley, N.J. 07110

Rx
Gantanol
Tabs #58
Sig: 4 tabs stat
then 2 tabs B.I.D.
until finished

In nonobstructed cystitis due to susceptible organisms

Gantanol[®] (sulfamethoxazole) B.I.D.
Basic Therapy

Before prescribing, please consult complete product information, a summary of which follows:

Indications: Relief of anxiety and tension occurring alone or accompanying various disease states.

Contraindications: Patients with known hypersensitivity to the drug.

Warnings: Caution patients about possible combined effects with alcohol and other CNS depressants. As with all sedating drugs, caution patients about hazardous occupations requiring complete mental alertness (e.g., operating machinery, driving). Though physical and psychological dependence have been reported on recommended use, use caution in administering to addiction-prone individuals or those who may increase dosage; withdrawal symptoms (including convulsions), following discontinuation of the drug and similar to those seen with barbiturates, have been reported. Use of any drug in pregnancy, lactation, or in women of childbearing age requires that its potential benefits be weighed against its possible hazards.

Precautions: In the elderly and debilitated, and in children over six, limit to the lowest effective dosage (initially 10 mg or less per day) to preclude ataxia or sedation, increasing gradually as needed and tolerated. Not recommended in children under six. Though generally recommended, if combination therapy with other psychotropics seems indicated, fully consider individual pharmacologic effects, particularly in use of potent drugs such as MAO inhibitors or phenothiazines. Observe usual precautions in presence of impaired renal or hepatic function. Paradoxical reactions (e.g., excitement, stimulation and rage) have been reported in psychiatric patients and hyperactive aggressive children. Employ usual precautions in treatment of anxiety states with evidence of impending depression; suicidal tendencies may be present and protective measures necessary. Variable effects on blood coagulants have been reported very rarely in patients receiving the drug and oral anticoagulants; causal relationship has not been established clinically.

Adverse Reactions: Drowsiness, ataxia and confusion may occur, espe-



cially in the elderly and debilitated. These are reversible in most instances by proper dosage adjustment, but are also occasionally observed at the lower dosage ranges. In a few instances syncope has been reported. Also encountered are isolated instances of skin eruptions, edema, minor menstrual irregularities, nausea and constipation, extrapyramidal symptoms, increased and decreased libido—all infrequent and generally controlled with dosage reduction; changes in EEG patterns (low-voltage fast activity) may appear during and after treatment; blood dyscrasias (including agranulocytosis), jaundice and hepatic dysfunction have been reported occasionally, making periodic blood counts and liver function tests

advisable during protracted therapy.

Usual Daily Dosage: Individualize for maximum beneficial effects. *Oral—Adults:* Mild and moderate anxiety and tension, 5 or 10 mg *t.i.d.* or *q.i.d.*; severe states, 20 or 25 mg *t.i.d.* or *q.i.d.* *Geriatric patients:* 5 mg *b.i.d.* to *q.i.d.* (See Precautions.)

Supplied: Librium® (chlordiazepoxide HCl) *Capsules*, 5 mg, 10 mg and 25 mg—bottles of 100 and 500; Tel-E-Dose® packages of 1000. *Libritabs®* (chlordiazepoxide) *Tablets*, 5 mg, 10 mg and 25 mg—bottles of 100 and 500. With respect to clinical activity, capsules and tablets are indistinguishable.



Roche Laboratories
Division of Hoffmann-La Roche Inc.
Nutley, N.J. 07110

to help reduce clinically significant anxiety and
thereby help improve patient receptivity

Librium® up to 100 mg daily in
severe anxiety
(chlordiazepoxide HCl)

Please see following page.



Symptom of excessive anxiety:

The patient may have difficulty in accepting medical counsel.

Clinical experience has shown that some unduly anxious patients may tend to deny or minimize their illness and therefore resist seeking

or following medical advice. Through its antianxiety action, adjunctive Librium (chlordiazepoxide HCl) can often calm the emotionally tense pa-

tient, thereby encouraging physical patient rapport and, on occasion making it easier for the patient to accept medical counsel.

for relief of excessive anxiety



Librium® 10-mg capsules
(chlordiazepoxide HCl)

Please see reverse side
for summary of product information.



The Journal of The KENTUCKY Medical Association

Viral Hepatitis Presenting with Urticaria

Nirmal S. Mann, M.D., Raymond P. Cloutier, M.D., Warlito A. Bautista, M.D.,
and Timothy J. Flanigan, M.D.

73

Rheumatic Fever Presenting as an Acute Abdomen

Christopher J. Harrison, M.D.

75

The Psychological Trauma of Sex or Lack Thereof

Nancy A. Roeske, M.D.

77

Early Warning Signs of Coronary Heart Attack

85

Focus on PSRO, pages 61, 63, 89, 91

Complete Contents on Page 59



This psychoneurotic often responds

Before prescribing, please consult complete product information, a summary of which follows:

Indications: Tension and anxiety states; somatic complaints which are concomitants of emotional factors; psychoneurotic states manifested by tension, anxiety, apprehension, fatigue, depressive symptoms or agitation; symptomatic relief of acute agitation, tremor, delirium tremens and hallucinosis due to acute alcohol withdrawal; adjunctively in skeletal muscle spasm due to reflex spasm to local pathology, spasticity caused by upper motor neuron disorders, athetosis, stiff-man syndrome, convulsive dis-

orders (not for sole therapy).

Contraindicated: Known hypersensitivity to the drug. Children under 6 months of age. Acute narrow angle glaucoma; may be used in patients with open angle glaucoma who are receiving appropriate therapy.

Warnings: Not of value in psychotic patients. Caution against hazardous occupations requiring complete mental alertness. When used adjunctively in convulsive disorders, possibility of increase in frequency and/or severity of grand mal seizures may require increased dosage of standard anticonvulsant

medication; abrupt withdrawal be associated with temporary increase in frequency and/or severity of seizures. Advise against simultaneous ingestion of alcohol and other CNS depressants. Withdrawal symptoms (similar to those with barbiturates and alcohol) have occurred following abrupt discontinuance (convulsions, tremor, abdominal and muscle cramps, vomiting and sweating). Keep addiction-prone individuals under careful surveillance because of their predisposition to habituation and dependence. pregnancy, lactation or women of childbearing age, weigh potential benefit against possible hazard.

When you determine that the depressive symptoms are associated with or secondary to predominant anxiety in the psychoneurotic patient, consider Valium (diazepam) in addition to reassurance and counseling, for the psychotherapeutic support it provides. As anxiety is relieved, the depressive symptoms attributable to it are also often relieved or reduced.

The beneficial effect of Valium is usually pronounced and rapid. Improvement generally becomes evident within a few days, although

some patients may require a longer period. Moreover, Valium (diazepam) is generally well tolerated. Side effects most commonly reported are drowsiness, ataxia and fatigue. Caution your patients against engaging in hazardous occupations or driving.

Frequently, the patient's symptoms are greatly intensified at bedtime. In such situations, Valium offers an additional advantage: adding an *h.s.* dose to the *b.i.d.* or *t.i.d.* schedule can relieve the anxiety and thus may encourage a more restful night's sleep.

Symptom complex Valium[®] (diazepam)

Precautions: If combined with psychotropics or anticonvulsants, consider carefully pharmacologic agents employed; drugs such as phenothiazines, narcotics, barbiturates, MAO inhibitors and antidepressants may potentiate sedation. Usual precautions apply in patients severely depressed, or with latent depression, or suicidal tendencies. Observe usual precautions in impaired renal

or hepatic function. Limit dosage to smallest effective amount in elderly and debilitated to preclude ataxia or oversedation.

Side Effects: Drowsiness, confusion, diplopia, hypotension, changes in libido, nausea, fatigue, depression, dysarthria, jaundice, skin rash, ataxia, constipation, headache, incontinence, changes in salivation, slurred speech, tremor, vertigo, urinary retention, blurred

vision. Paradoxical reactions such as acute hyperexcited states, anxiety, hallucinations, increased muscle spasticity, insomnia, rage, sleep disturbances, stimulation have been reported; should these occur, discontinue drug. Isolated reports of neutropenia, jaundice; periodic blood counts and liver function tests advisable during long-term therapy.

Valium[®] 2-mg, 5-mg, 10-mg tablets
(diazepam)



When their worst subject is acne

many things may help:
patient education, antibiotics,
diet, cleaner skin and the

Clearasil® formula sulfur, resorcinol, bentonite

Basic peeling/drying formulation—plus
the proven sebum-absorbing action of bentonite—
for the daily routine of anti-acne therapy.



Clearasil: therapeutically sound combinations
of professionally recommended ingredients

- Cosmetically suited to teen-ager's needs
- Low cost—ready availability

For a supply of Clearasil "self-starter" samples
and/or a supply of the patient education booklet,
"The Many Faces of Acne Therapy," simply write
to the following address: Vick Chemical Company,
122 East 42nd Street, New York, N.Y. 10017.
Attention: S. M. Yanklowitz.

	Regular Tinted	Vanishing Formula
Sulfur	8%	3%
Resorcinol	2%	2%
Bentonite	11.5%	10%

EDITOR

Wolter I. Hume, Jr., M.D.

ASSOCIATE EDITOR

Henry B. Asman, M.D.

ASSISTANT EDITOR

A. Evon Overstreet, M.D.

EXECUTIVE EDITOR

Robert G. Cox

MANAGING EDITOR

Jerry E. Mohoney

ASSISTANT MANAGING EDITOR

Dione Moxey

DEPARTMENTAL EDITORS

Charles C. Smith, Jr., M.D., Scientific

John W. Greene, Jr., M.D., Maternal
Mortality

BOARD OF CONSULTANTS
ON SCIENTIFIC ARTICLES

Term Expires July 1, 1976

Gehrig M. Robinson, M.D.

Mork S. Sexter, M.D.

Thomas E. Booth, M.D.

Patrick L. Jospier, M.D.

Oscar W. Thompson, M.D.

Stephen C. Schindler, M.D.

Von R. Jenkins, M.D.

John W. Miller, M.D.

Term Expires July 1, 1975

Robert E. Arnold, M.D.

Robert A. Hall, M.D.

Chrismon S. Jackson, Jr., M.D.

Lafayette G. Owen, M.D.

Anne Richman, M.D.

Ruel T. Routh, M.D.

Frank G. Siman, M.D.

Leslie Von Nostrand, M.D.

Term Expires July 1, 1974

David S. Nightingale, M.D.

Dennis B. Penn, M.D.

Andrieus J. Dzenitis, M.D.

Joseph G. Whelan, Jr., M.D.

Conrad H. Jones, M.D.

Peter C. Campbell, Jr., M.D.

William E. Jackson, M.D.

Edgar W. Woltrip, M.D.

Published at 3532 Ephroim McDowell Drive,
Louisville, Ky. 40205
Phone (Area Code 502) 452-6324

Subscription \$10 (Members \$5)

Single Copy \$1

Second-class postage paid at Louisville, Kentucky.
Acceptance for mailing at special rates postage
provided in Section 1103, act of Oct. 3, 1917,
authorized May 25, 1920.

Journal of The KENTUCKY Medical Association

Contents

SCIENTIFIC ARTICLES

Viral Hepatitis Presenting with Urticaria

Nirmal Mann, M.D., Raymond Cloutier, M.D.,
Warlito Bautista, M.D. and Timothy Flanigan,
M.D.73

Rheumatic Fever Presenting as an Acute Abdomen

Christopher Harrison, M.D.75

The Psychological Trauma of Sex or Lack Thereof

Nancy Roeske, M.D.77

Postoperative Renal Failure Following Methoxyflurane Anesthesia (Grand Rounds)

D. G. Martin, M.D., D. Nagar, M.D. and R.
Schacht, M.D.82

SPECIAL ARTICLES

Public Education Program on the Early Warning Signs of Coronary Heart Attack

Howard B. McWhorter, M.D.85

Some Approaches to Health Care Delivery: A Large County Society Approach

McHenry S. Brewer, M.D.87

EDITORIALS

PSRO89

Rural Kentucky Medical Scholarship Fund90

ORGANIZATION

Health Care Important Issue in 93rd Congress 91

Digest of Board of Trustees Minutes, December 13, 1973 91

Kentucky Named as PSRO Area 91

Ky. Physicians Are Appointed to AMA Councils, Committees 92

KMA Executive Director Named to PCMA Board of Directors 92

Physician-Population Ratio of Kentucky Counties Noted for 1973 .. 97

REGULAR FEATURES

President's Page 61 KFMC Page 63

Maternal Mortality 62 Blue Shield Page 66

Postgraduate Opportunities .. 68

KENTUCKY MEDICAL ASSOCIATION

BOARD OF TRUSTEES — 1973-1974

Officers

President	FRED C. RAINEY 912 Woodland Dr., Elizabethtown 42701 (502) 765-4147	1974
President-Elect	HOYT D. GARDNER 508 Watterson City Bldg., Louisville 40218 (502) 452-2684	1974
Immediate Past President	LEE C. HESS 7211 U. S. 42, Florence 41042 (606) 371-1153	1974
Vice-President	GABE A. PAYNE 1610 S. Main St., Hopkinsville 42240 (502) 885-8445	1974
Secretary	S. RANDOLPH SCHEEN 1163 Medical Arts Bldg., Louisville 40217 (502) 451-1661	1975
Treasurer	KEITH P. SMITH Medical Arts Bldg., Corbin 40701 (606) 528-3211	1975
Speaker, House of Delegates	RICHARD F. GREATHOUSE 5 Triangle Center, Louisville 40220 (502) 458-3219	1974
Vice-Speaker	CARL COOPER, JR. Bedford 40006 (502) 255-3282	1974
Chairman, Board of Trustees	BALLARD W. CASSADY Pikeville Medical Bldg., Pikeville 41501 (606) 437-6698	1974
Vice-Chairman	PAUL J. PARKS 1109 State St., Bowling Green 42101 (502) 781-5111	1974

Delegates to the A.M.A.

J. THOS. GIANNINI, Suite 3E, Suburban Medical Plaza, Louisville (502) 897-2555	Jan. 1973-Dec. 1974
CHAS. G. BRYANT, (Alt.) 3357 Medical Arts Bldg., Louisville (502) 452-1558	Jan. 1973-Dec. 1974
JOHN C. QUERTERMUS, 205 S. 8th St., Murray (502) 753-5161	Jan. 1974-Dec. 1975
WILLIAM W. HALL, (Alt.) Mayfair Square, Owensboro (502) 684-6255	Jan. 1974-Dec. 1975
DAVID B. STEVENS, 333 Waller Ave., Lexington (606) 254-8008	Jan. 1974-Dec. 1975
THOMAS L. HEAVERN, (Alt.) 2435 Alexandria, Highland Hgts. (606) 441-7600	Jan. 1974-Dec. 1975

Trustees

1st	W. EUGENE SLOAN, 2320 Broadway, Paducah 42001 (502) 443-4581	1974
2nd	CHARLES C. KISSINGER, Atkinson Park, Henderson 42420 (502) 826-6271	1976
3rd	RALPH L. CASH, 210 West Main St., Princeton 42445 (502) 365-2037	1974
4th	W. BRUCE HAMILTON, 4th & Buckman, Shepherdsville 40165 (502) 543-6362	1974
5th	EDWARD N. MAXWELL, St. Joseph Infirmary, Louisville 40217 (502) 636-7461	1975
6th	PAUL J. PARKS, 1109 State St., Bowling Green 42101 (502) 781-5111	1975
7th	JOHN P. STEWART, 220 Steele St., Frankfort 40601 (502) 227-4718	1976
8th	CARL J. BRUEGGEMANN, 325 W. 19th St., Covington 41014 (606) 291-4768	1975
9th	JAMES L. FERRELL, Bourbon Medical Ctr., Paris 40361 (606) 987-2200	1976
10th	DAVID A. HULL, 2368 Nicholasville Rd., Lexington 40503 (606) 277-5711	1976
11th	R. EUGENE BOWLING, 527 W. Main, Richmond 40475 (606) 623-7754	1975
12th	ROBERT N. McLEOD, JR., 500 Bourne Ave., Somerset 42501 (606) 678-8155	1974
13th	J. WESLEY JOHNSON, 2301 Lexington Ave., Ashland 41101 (606) 325-1151	1976
14th	BALLARD W. CASSADY, Pikeville Med. Bldg., Pikeville 41501 (606) 437-6698	1974
15th	HAROLD L. BUSHEY, 406 Knox St., Box 770, Barbourville 40906 (606) 546-3024	1975

BUYERS GUIDE

FEBRUARY BUYERS GUIDE FOR JOURNAL OF KMA 1974

Abbott Laboratories	96	Pharmaceutical Manufacturers Association	108-109
American Medical Association	99	Poythress, William P., Company	104
Burroughs Wellcome Company	69	Robins, A. H., Company	105-107
Flint Laboratories	110	Roche Laboratories	S6-S7, 100-101, 111-112
General Leasing Corporation	70	Roeig, J. B.	70-71
Heart Association of Louisville and Jefferson County, Inc.	67	Searle Laboratories	94-95
Lilly, Eli & Company	72	Smith Kline & French Laboratories	93
Morion Laboratories	64-65	Southern Optical Company	102
McNeil Laboratories	103	Vick Chemical Company	58
Medical Protective Company	102		



MESSAGE FROM THE PRESIDENT

The Repeal of PSRO

The official position of KMA on PSRO seems to have become encumbered in recent weeks with the interpretations of individuals and their associates that their interpretation is the only feasible, understanding one to have. We have had the very dubious honor of having outside organizations and groups interpret for us our own position, and they have been overly generous in assisting us in the dissemination of that information, however erroneous their statements may be.

Therefore, at the risk of being repetitious, I shall once again refer to the PSRO resolution as passed by the KMA House of Delegates.

1. Resolve, that the House of Delegates support the concept of a single statewide PSRO for Kentucky as indicated in the KFMC implementation plan and confirm the position taken by the KMA Board of Trustees in this regard. 2. Resolve, that the KFMC may enter into a provisional, contractual agreement to serve PSRO purposes if no substantial changes are made in the plan submitted by the Kentucky Foundation for Medical Care to HEW. 3. Resolve, that if major changes occur, the new plan be approved by the House of Delegates at a regular or, if necessary, a special called meeting. 4. Resolve, that this House of Delegates, as individual physicians and through its Public Relations Committee and the Committee on Legislative Activities of KMA, work to inform the public and legislators as to the potential deleterious effects of this law on the quality, confidentiality, and cost of medical care. 5. Resolve, that this House of Delegates request and petition the Kentucky Congressional delegation and every member of both Houses of U.S. Congress and the Kentucky Legislature to work for the repeal of PSRO and a copy of this resolution be forwarded to these legislative bodies. 6. Resolve, that this House of Delegates instruct its delegates to the AMA to introduce a similar resolution in that House.

In spite of suggestions and requests on the part of a few to ignore portions of this resolution and implement others, I can assure you that we have every intent of following the directions of the House of Delegates to the letter; and so far as I am concerned, only the House of Delegates is privileged to make any changes. Contrary to the vocal (and quite frequently erroneous) charges of a few, the resolve dealing with the repeal of PSRO has already been implemented. Letters and a copy of the PSRO resolution have been sent to all 100 U.S. Senators, all 435 U.S. Congressmen, all 38 state Senators, and all 100 state Representatives informing them of our position. In addition, personal contacts have been made and we shall continue to make use of these opportunities.

Likewise, we shall proceed to implement the total resolution, although this phase will quite obviously require more time and careful approach.

I am of the belief that efforts of any kind are always more productive if approached with reason, accuracy, honesty, and united effort. I must say that it is both disappointing and unfortunate that a few individual members seem pre-occupied with forcing their personal views, making incorrect statements, and sometimes making malicious charges against the Kentucky Foundation for Medical Care, AMA, and KMA. Such actions and inaccuracies, in my opinion, have more "potential deleterious effects" than PSRO itself.

FRED C. RAINEY, M.D.



MATERNAL MORTALITY



From the Files of the KMA Maternal Mortality Study Committee

—Edited by John W. Greene, Jr., M.D.

THIS 42-year-old, married, white, gravida 9, para 5, Ab. 3, was seen in the emergency room, quite pale, January 17, 1972. Her family stated she refused medical attention. She had three incomplete abortions at the hospital in the past, 1955, 1962, and 1963. All required a D&C.

She expired before a blood count or IV fluids could be started. Permission for a limited autopsy was obtained.

There was extreme pallor of the skin of the entire body and no evidence of trauma. The abdomen appeared moderately distended with a large, firm mass occupying the lower half of the abdomen. There was evidence of blood coming from the vagina.

The abdominal examination revealed the uterus enlarged with no evidence of rupture. The placenta was found partially still attached to the uterine wall when the uterus was opened. It was described as "adherent at an area about two inches in diameter in the fundus. This could be released with difficulty." There was nothing to suggest a placenta accreta. The umbilical cord was absent except for a very short stump appearing centrally on the fetal side of the placenta. Several large blood clots were stripped from the uterine side of the placenta. There was not evidence of free blood in the abdominal cavity. The uterus was comparable in size with a seven month gestation, the fetus and umbilical cord was absent.

The cause of death was uterine pregnancy

delivered with postpartum hemorrhage. Retained placenta.

Comments

The Committee classified this as a direct obstetrical death by the fact that the patient did not report for care at a time for which she could have properly been treated.

Once again, it is emphasized that family planning and conception control would have prevented this maternal death in this multi-gravida patient. It is again to be emphasized that death from postpartum hemorrhage is practically entirely preventable. In the classic paper by Beecham in the *American Journal of Obstetrics and Gynecology*, Vol. 53, pg. 442, 1947, it was shown that adequate care can prevent death from postpartum hemorrhage. In the conclusion of their paper, it was noted that the factors in most cases were: 1) carelessness in management, 2) inadequate prenatal care, and 3) inadequate care during labor or operation and failure to recognize the hemorrhage. In this situation, it was certainly a failure of the patient to report for care at a proper time. It is also a pertinent fact in the classic paper of Beecham that the average time between delivery and death from postpartum hemorrhage was five and a half hours. Therefore, there was ample time for adequate treatment. As they say in their paper, all too often continuous "seepage and oozing" of blood from the vagina went unnoticed by attendants. The proper diagnosis only being made when the patient went into shock.



FOUNDATION PAGE



KENTUCKY FOUNDATION FOR MEDICAL CARE

The Status of PSRO

EVERYONE should be aware of events that have occurred concerning PSRO within the past few months and since the KMA Annual Meeting, so this "update" is provided for general information.

The Final Resolution passed by the KMA House of Delegates called essentially for four actions: that the KFMC enter into contractual agreements with the Department of Health, Education and Welfare to operate a single statewide PSRO based on the submitted Foundation plan; that the KMA, through its committees and individual members, seek to inform the public of the potential deleterious effects of the law; that all state and U.S. legislators be requested to work for repeal of PSRO; and that a similar resolution be introduced to the AMA House of Delegates.

The resolution and letters were sent soon after the KMA Annual Meeting to all U.S. Congressmen and state legislators. A similar resolution was introduced in the AMA House of Delegates.

At the AMA Clinical Convention held in Anaheim, December 2-3, 1973, final PSRO actions adopted fell closely in line with the content of the resolution passed by the KMA House. After record discussion, an amended report by the AMA Board of Trustees and Council on Medical Service jointly, was accepted which made note of four basic principles: 1) that the medical profession remains committed to professionally directed peer review, 2) that medical society peer review programs of proven effectiveness should not be dismantled by PSRO, 3) that local hospital medical staffs and medical societies work together to make peer review stronger and resistant to intrusion by outside parties, and 4) that the AMA House of Delegates, through the AMA Board, the AMA Council on Legisla-

tion, and as individual members work to inform the public of the deleterious effects of the law on the cost, quality and confidentiality of care.

The House felt that PSRO repeal would be in the best interest of the public and that body, along with the Board of Trustees and the Council on Legislation felt that modification, amendment and close interpretation of rules should be sought.

Both the AMA and KMA House of Delegates voted for repeal in the best interest of patient care.

Historically, we in Kentucky have voluntarily demonstrated our commitment to peer review while being opposed to mandated bureaucratic review by federal regulation. However, we must recognize that if, or until, such time as repeal is effected, we must keep working. We must insure, not only in the interest of the profession, but most importantly, in the interest of the patients we serve, that the administration for implementation of PSRO be under the control and supervision of professionals who best know and understand medical care.

Although we are being forced literally to go in two directions at once, that route specifically dictated for the Foundation must be pursued in a timely manner. On December 20, 1973, the Federal Register announced that Kentucky, along with 30 other states and U.S. Territories would be single PSRO areas. Contracts with qualifying organizations will be made, therefore, in the very near future. To our knowledge, the KFMC is perhaps the only qualified group in the state. Certainly it is the only group that has the recognized support of most allied health organizations in the Commonwealth. If and when the Foundation is announced as the agency that will organize the PSRO, we must then make a binding contract. If not, then non-physician supervision of PSRO is assured re-

ardless of the state of any repeal or amendment moves.

The Foundation is no more in favor of PSRO than its most ardent opposers but has been charged with effecting organization of required review. We only ask that the KMA membership recognize our dilemma and support our activities. If the law is amended, we can merely redirect those activities. If the law is repealed, we have fortunately only wasted our time. If the law stands and we are not prepared, we have wasted an important opportunity to promote good patient care.

DAVID A. HULL, M.D.
PRESIDENT

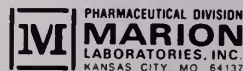
February Is Heart Month

Support the 1974 Heart Fund
campaign conducted
by your
Heart Association

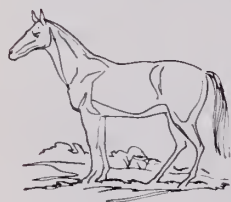
See Special Article, this issue

**At Your Service in
The Bluegrass
State**

In the state* that got its
nickname from the dusty-blue
blossoms of the grass
around Lexington . . .



is represented by . . .



Larry Farmer



Lee Fuqua



John McKinney



Bill Nicol



Larry Plumlee



Jon Swanson

*For more information on the history of your state, write Professional Services, Marion Laboratories, Inc.

These men bring you ...

A Bit of History

Long before Luke P. Blackburn (1816-1887) was sworn in as Kentucky's 28th governor, he took another oath—the Hippocratic.

As Kentucky's first and only physician-governor, Doctor Blackburn had a reputation for bravery and dedication. After graduation from Transylvania College in 1834, he worked single-handedly in eradicating a cholera epidemic in Versailles and the grateful citizens promptly elected him to the State Legislature.

Medicine, however, remained as Doctor Blackburn's major interest, so he moved to Natchez, where he imposed quarantines for yellow fever—then a relatively unknown method that drew criticism from many. He was awarded later for this daring move which saved countless lives. He served as a surgeon in the Civil War and was called on often to help yellow fever victims all over the country.

Doctor Blackburn returned to Kentucky and was elected governor in 1878. Because of his concern for the health of prisoners in the State, construction of a new facility at Eddyville was authorized to replace the crowded and unsanitary penitentiary in Frankfort.

**For comfort
our prescription
nicotinic acid**



THE OPTIMAL-DOSE, 400-mg, timed-release NICO-400® (nicotinic acid) capsule provides • Controlled flushing for the desired effects without therapy-limiting side effects. • Convenient b.i.d. dosage that's less likely to be forgotten. • The economy of nicotinic acid medication.

For comfort wherever nicotinic acid is used

NICO-400®
(nicotinic acid) Plateau CAPS®

Description: Each capsule contains 400 mg of nicotinic acid in a special base designed to provide a controlled, sustained effect. **Indications:** NICO-400® is recommended for all disease states in which nicotinic acid has been used. These include conditions associated with deficient circulation and for use in the treatment of nicotinic acid deficiencies. **Contraindications:** Individuals with a hypersensitivity to nicotinic acid, severe hypotension or hemorrhaging. **Warnings:** Use with caution in those patients with history of peptic ulcer, severe diabetes, impaired gall bladder or liver functions and in pregnant women. **Adverse Reactions:** Patients should be informed of the short lived reactions experienced with nicotinic acid therapy: cutaneous flushing, a sensation of warmth, tingling and itching of the skin, increased gastrointestinal motility and sebaceous gland activity. **Dosage and Administration:** One capsule every 12 hours or as directed by physician. **Caution:** Federal law prohibits dispensing without prescription. **How Supplied:** Bottles of 100 capsules.

Another patient benefit product from

MARION
PHARMACEUTICAL DIVISION
LABORATORIES INC.
KAN. AB. L. TV. MISSOURI 64117



ANSWERS TO YOUR QUESTIONS ABOUT BLUE SHIELD

During the month of December, 1973, approximately 10% of all Blue Shield claims filed were returned to physicians' offices because of incomplete information. This amounted to over 4,000 claims. Also, over 4,000 additional claims were rejected because they were filed for services not covered by the members' Certificates of Membership.

Q. What information is most frequently omitted from or reported incorrectly on the Blue Shield Claim form?

A. *Items most frequently causing claims to be returned to physicians' offices are listed below, along with their corresponding item numbers on the Blue Shield claim form:*

1. *Incorrect certificate number. (Item 1)*
2. *Date of service not included. (Item 17)*
3. *Patient's age not included. (Item 4)*
4. *Information regarding surgeon's name and date of surgery. (Item 29)*
5. *Size and location of lesion not given. (Item 25)*

It is the goal of Blue Shield of Kentucky to give the best possible service to physicians and members. Claims returned to your offices for completion or correction of information affect Blue Shield's efficiency by slowing payment and increasing the cost of claims processing. If your office provides complete and accurate information, it helps us provide better service to you and our members.

Q. What non-covered services are most frequently filed to Blue Shield of Kentucky?

A. *Over 600,000 members have various levels of coverage for outpatient diagnostic x-ray and/or laboratory services. Also, many members have coverage for outpatient medical (non-surgical) treatment, or first aid; however, claims are frequently filed for these specific services when members do not have coverage.*

Q. How can physicians identify members **not** having coverage for these services?

A. *Blue Shield members with Blue Shield Coverage Codes (15 04), (15 10), (42 60), and (44 60) **do not** have coverage for non-accident outpatient x-rays, outpatient diagnostic laboratory services, and medical (non-surgical) treatment, or first aid. Please do not submit claims for these services when the member has one of the coverage codes listed above.*

Q. What can be done when the Blue Shield member insists a claim be filed even though the physician's office knows the service rendered is not covered?

A. *Under this circumstance, we realize the only thing that will satisfy the member is a rejection notice from Blue Shield of Kentucky. However, please keep in mind that it costs the same to process a claim for a non-covered service as it does to process one for a covered service. With this in mind, we certainly appreciate the assistance of you and your staff in reducing the number of unnecessary claims.*

Should you have any questions regarding this information, or other subjects related to Blue Shield of Kentucky, Professional Relations Representatives are available to assist and will visit your office upon request. Please contact the Blue Cross and Blue Shield office nearest you.



PLAN TO ATTEND

Twentieth Annual Symposium on Cardiovascular Diseases

March 20 and 21, 1974



STOUFFER'S LOUISVILLE INN — LOUISVILLE, KENTUCKY

Wednesday, March 20, 1974
9:00 a.m.

The Changing Role of the Electrocardiograph in Myocardial Infarction and Coronary Artery Disease"

LEO G. HORAN, M.D., Professor and Chairman, Department of Medicine, University of Louisville School of Medicine

"Stress Testing in Coronary Artery Disease"

SAMUEL FOX, III, M.D., Professor of Medicine, The George Washington University Medical Center, Washington, D.C.

"The Electrocardiogram"

HARVEY FEIGENBAUM, M.D., Professor of Medicine, Director, Hemodynamic Laboratory, Indiana University of Medicine, Indianapolis

"Radioactive-Tracers in Cardiovascular Disease"

HENRY N. WAGNER, JR., M.D., Professor of Medicine and Radiology and Head, Divisions of Nuclear Medicine and Radiation Health, The Johns Hopkins Medical Institutions, Baltimore

"Genesis of and Approach to Common and Uncommon Types of Brady Arrhythmias in Acute Myocardial Infarction"

NANCY C. FLOWERS, M.D., Professor of Medicine, Chief, Section of Cardiology, University of Louisville School of Medicine

"Auscultatory Findings in Coronary Heart Disease"

ROBERT J. ADOLPH, M.D., Director of Cardiac Research Laboratory, Professor of Medicine, University of Cincinnati School of Medicine, Cincinnati General Hospital

"Pericardial Disorders Complicating the Diagnosis and Management of Coronary Artery Disease and Myocardial Infarction"

RALPH SHABETAI, M.D., Professor of Medicine, Director, Hemodynamic Laboratories, University of Kentucky College of Medicine

PANEL DISCUSSION

RALPH M. DENHAM, M.D., Moderator

Thursday, March 21, 1974
8:30 - 9:30 a.m.

"GRAND ROUNDS"—

Rankin Amphitheater, General Hospital

"Non-Invasive Diagnostic Techniques in Cardiology"

ERNEST CRAIGE, M.D., and HARVEY FEIGENBAUM, M.D., Conducting

10 a.m.

Stouffer's Louisville Inn

"Surgical Treatment of Coronary Artery Disease, 1974 — An Overview"

W. DUDLEY JOHNSON, M.D., Medical College of Wisconsin, Chief of Thoracic Surgery, St. Luke Hospital, Milwaukee

"Non-Invasive Graphic Studies in Coronary Artery Disease"

ERNEST CRAIGE, M.D., Henry A. Foscue Distinguished Professor of Cardiology, School of Medicine, University of North Carolina, Chapel Hill

THE BERNARD D. ROSENBLUM MEMORIAL LECTURE

"Exercise in Rehabilitation and Treatment of Coronary Artery Disease and Myocardial Infarction"

SAMUEL FOX, III, M.D.

"Psychological Complications of Rehabilitation from Coronary Artery Disease"

THOMAS P. HACKETT, M.D., Chief, Psychiatric Consultation Service, Massachusetts General Hospital, Boston

PANEL DISCUSSION

ROBERT R. GOODIN, M.D., Moderator

Sponsored by

THE HEART ASSOCIATION OF LOUISVILLE AND JEFFERSON COUNTY, INC.

THE JEFFERSON COUNTY, KENTUCKY ACADEMY OF FAMILY PHYSICIANS

THE UNIVERSITY OF LOUISVILLE SCHOOL OF MEDICINE

THE COUNCIL ON CLINICAL CARDIOLOGY, AMERICAN HEART ASSOCIATION

Robert S. Tillett, M.D., Chairman

This program is acceptable for 11 prescribed hours by the American Academy of Family Physicians . . . **REGISTRATION FREE**



POSTGRADUATE OPPORTUNITIES



IN KENTUCKY

FEBRUARY

- 20 "Transfusion Practices", Ellis A. Fuller, M.D., Jewish Hospital Medical Lecture Series, 6:30 p.m., Louisville
- 21 Annual Educational Seminar and Paul A. Keeney Memorial Lecture, sponsored by SS. Mary and Elizabeth Hospital, 2-5 p.m., Ramada Inn, Watterson Expressway, Louisville

MARCH

- 11 "The Killers" series on "Cancer: The Cell That Won't Die," KET television stations, 8 p.m., EST
- 14-16 "Current Concepts in Obstetrics and Gynecology"*, University of Kentucky Medical Center; Registration: \$125; Lexington
- 20-21 Symposium on Cardiovascular Diseases, Heart Association of Louisville and Jefferson County, Stouffer's Inn, Louisville
- 26-27 Colposcopy Seminar*, University of Kentucky Medical Center; Registration: \$200; Lexington

APRIL

- 4 Annual Spring Conference, "Recent Advances in the Management of Pulmonary Diseases," Lexington Clinic and Lexington Clinic Foundation, Lexington.
- 5 "A Current Evaluation of an Old Problem: Diabetes Mellitus"*, University of Kentucky Medical Center; Registration: \$15; Lexington

MAY

- 1-3 Symposium on Bone and Joint Radiology*, University of Kentucky Medical Center, Lexington
- 9 Postgraduate Symposium on Rheumatic Diseases (10th Annual), Health Sciences Center, University of Louisville School of Medicine, Louisville
- 27-31 "Practical Therapeutics in Internal Medicine"*, University of Kentucky Medical Center, Co-sponsored by American College of Physicians, Lexington
- 30-31 Emergency Health Care Seminar, Ramada Inn/Bluegrass Convention Center, Louisville

*For further information contact Ronald D. Hamilton, M.D., Director, Continuing Education, College of Medicine, University of Kentucky, Lexington 40506

IN SURROUNDING STATES

MARCH

- 25-28 Spring Meeting, American College of Surgeons, Houston

APRIL

- 1-3 AMA Third National Congress on the Quality of Life, Marriott Motor Hotel, Chicago.
- 5-6 AMA-Southeast Regional Mental Health Conference, Marriott Hotel, Atlanta.
- 22-25 Spring Session, American Academy of Pediatrics, Bal Harbour, Fla.
- 29-May 2 Clinical Meeting, American College of Obstetricians and Gynecologists, Las Vegas

SCHEDULE OF UPCOMING PROGRAMS ON NETWORK FOR CONTINUING MEDICAL EDUCATION

(For listing of stations, see October issue, page 676.)

February 11-February 24

PAUL D. WHITE: CARDIOLOGY IN MY TIME
The late Dr. Paul D. White describes the development of cardiology as a specialty. This special program was first introduced during the American College of Cardiology annual meeting in 1968 and is offered again on the anniversary of that meeting.

THE DISTRESSED NEWBORN: THE FIRST 30 MINUTES, Peter A. M. Auld, M.D., Director, Neonatal Intensive Care Unit, and Professor of Pediatrics, New York Hospital, Cornell Medical Center, New York.

February 25-March 10

TREATMENT OF PULMONARY EMBOLISM
William Hall, M.D., Assistant Professor of Medicine, University of Rochester School of Medicine, Rochester, N.Y.

THE FIVE-MINUTE JOINT EXAM, John J. Calabro, M.D., Professor of Medicine, University of Massachusetts Medical School.

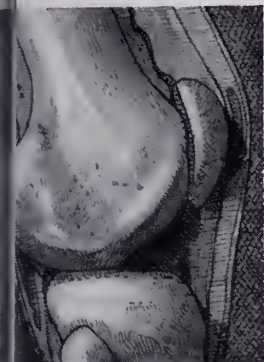
DETECTING OPEN ANGLE GLAUCOMA, Jerome N. Goldman, Assistant Clinical Professor of Ophthalmology, Howard University Medical School, Washington, D.C.

Don't Forget — — —

KMA Annual Meeting
September 24-26 — Louisville

WHEN FLU HITS AND HURTS

RE Muscles
and joints



it hurts, Empirin
d with Codeine usually
the symptomatic
ded.

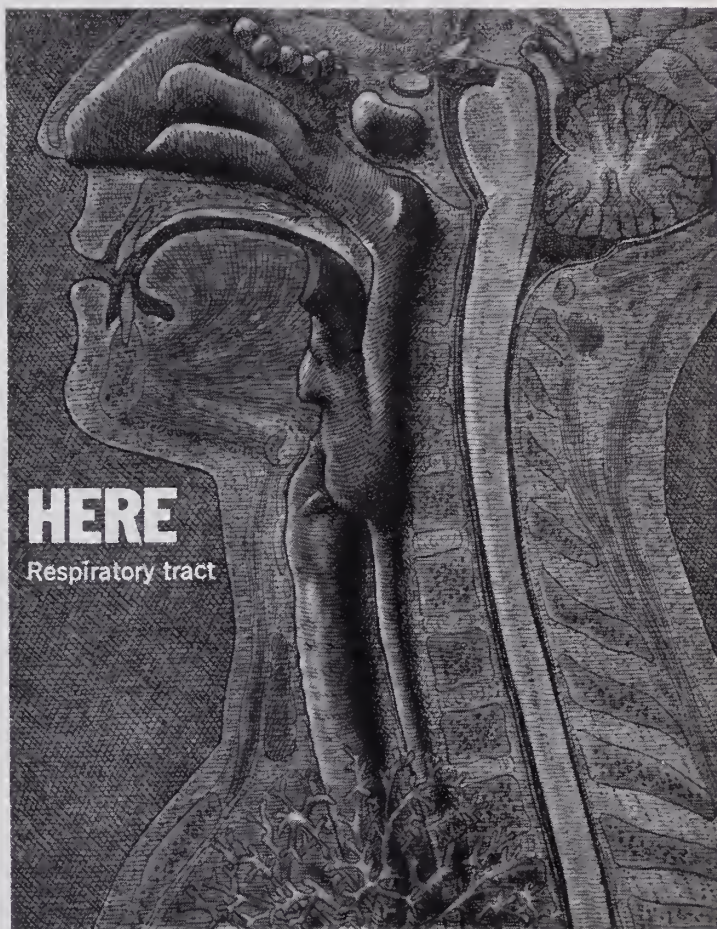
RE Headache



associated respiratory
, Empirin Compound
eine provides an
ve bonus in addition to
pain and bodily
ort.

cribing convenience:
o 5 refills in 6 months,
iscretion (unless
d by state law); by
e order in many states.

Compound with
No. 3, codeine
te* 32.4 mg. (gr. ½);
deine phosphate*
(gr. 1) *Warning—may
-forming. Each tablet
tains: aspirin gr. 3½,
tin gr. 2½, caffeine



HERE
Respiratory tract

EMPIRIN[®] COMPOUND c CODEINE

#3, codeine phosphate* (32.4 mg.) gr. ½
#4, codeine phosphate* (64.8 mg.) gr. 1

Burroughs Wellcome Co.
Research Triangle Park
North Carolina 27709

General LEASING

Doctor! This is Your Own Plan
ENDORSED BY THE

**Kentucky Medical
Association**

for the leasing of

cars — all makes & models,

Medical, Surgical & Laboratory

Equipment

and Office Furnishings.

**13 YEARS EXPERIENCE
IN THIS FIELD**

**General Leasing
CORPORATION**

121 Bauer Ave. St. Matthews

(502) 896-0383

PRESCRIBING INFORMATION
Antiminth (pyrantel pamoate) Oral Suspension

Actions. Antiminth (pyrantel pamoate) has demonstrated anthelmintic activity against *Enterobius vermicularis* (pinworm) and *Ascaris lumbricoides* (roundworm). The anthelmintic action is probably due to the neuromuscular blocking property of the drug.

Antiminth is partially absorbed after an oral dose. Plasma levels of unchanged drug are low. Peak levels (0.05-0.13 µg/ml.) are reached in 1-2 hours. Quantities greater than 50% of administered drug are excreted in feces as the unchanged form, whereas only 7% or less of the dose is found in urine as the unchanged form or the drug and its metabolites.

Indications. For the treatment of ascariasis (roundworm infection) and enterobiasis (pinworm infection).

Warnings. *Usage in Pregnancy:* Reproduction studies have been performed in animals and there was no evidence of propensity for harm to the fetus. The relevance to the human is not known.

There is no experience in pregnant women who have received this drug.

Precautions. Minor transient elevations of SGOT have occurred in a small percentage of patients. Therefore, this drug should be used with caution in patients with pre-existing liver dysfunction.

Adverse Reactions. The most frequently encountered adverse reactions are related to the gastrointestinal system.

Gastrointestinal and hepatic reactions: anorexia, nausea, vomiting, gastralgia, abdominal cramps, diarrhea and tenesmus, transient elevation of SGOT.

CNS reactions: headache, dizziness, drowsiness, and insomnia. Skin reactions: rashes.

Dosage and Administration. *Children and Adults:* Antiminth Oral Suspension (50 mg. of pyrantel base, ml.) should be administered in a single dose of 11 mg. of pyrantel base per kg. of body weight (or 5 mg./lb.) maximum total dose 1 gram. This corresponds to a simplified dosage regimen of 1 cc. of Antiminth per 10 lb. of body weight. (One teaspoonful = 5 cc.)

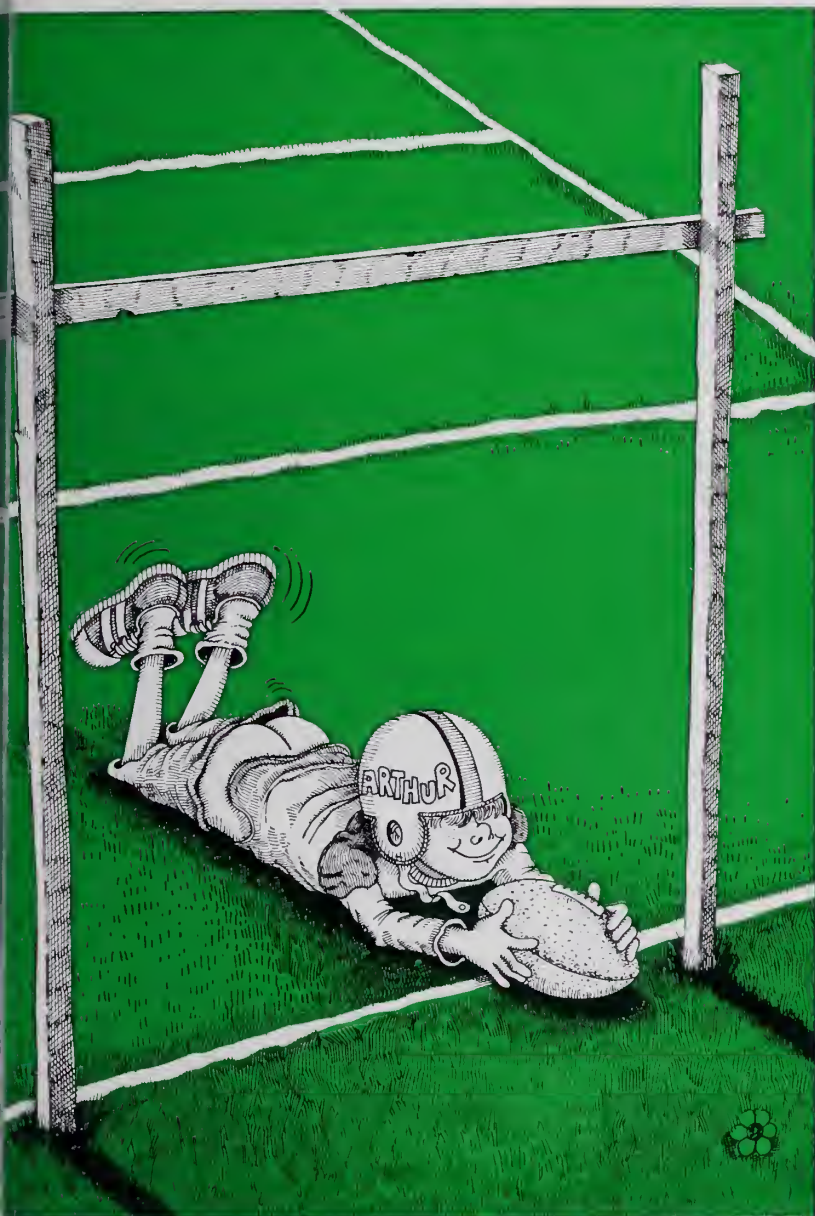
Antiminth (pyrantel pamoate) Oral Suspension may be administered without regard to ingestion of food or time of day; and purging is not necessary prior to, during, or after therapy. It may be taken with milk or fruit juices. Because of limited data on repeated doses, no recommendations can be made.

How Supplied. Antiminth is available as a pleasant tasting caramel flavored suspension which contains the equivalent of 50 mg. pyrantel base per ml., supplied in 60 cc. bottles.

ROERIG 

A division of Pfizer Pharmaceuticals
New York, New York 10017

WORMS BLITZED



A single dose of Antiminth (1 cc. per 10 lbs. of body weight, 1 tsp./50 lbs. — maximum dose, 4 tsp.=20 cc.) offers highly effective control of *both* pinworms and roundworms.

Antiminth has been shown to be extremely well tolerated by children and adults alike in clinical studies.* Pleasantly caramel-flavored, it is non-staining to teeth and oral mucosa on ingestion... doesn't stain stools, linen or clothing.

One prescription can economically treat the entire family.

ROERIG *Pfizer*

A division of Pfizer Pharmaceuticals
New York, New York 10017

Pinworms, roundworms controlled
with a single, non-staining dose of
ANTIMINTH[®]
(pyrantel pamoate)

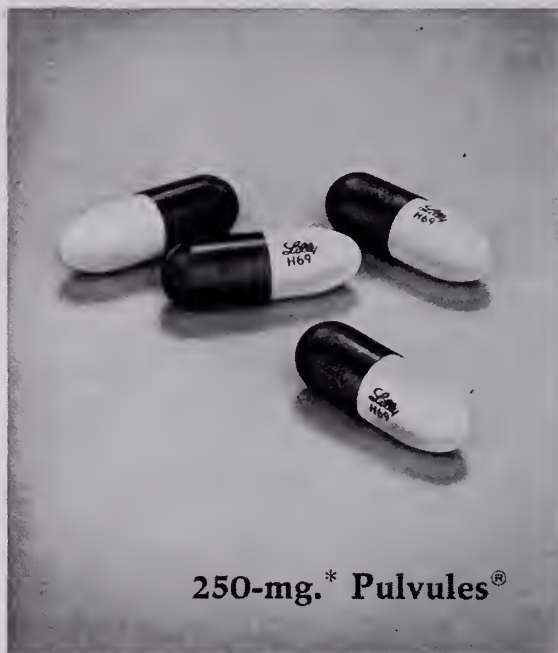
equivalent to 50 mg. pyrantel/ml.

ORAL SUSPENSION

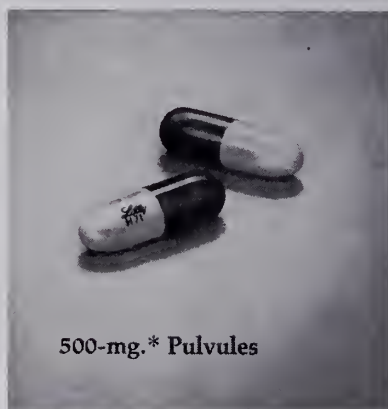
Keflex[®]

cephalexin monohydrate

*it
makes
sense*



250-mg.* Pulvules[®]



500-mg.* Pulvules



Oral Suspension

250 mg.* / 5 ml.
100-ml. size

125 mg.* / 5 ml.
60 and 100-ml.
sizes



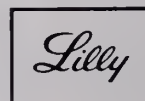
Pediatric Drops

100 mg.* / ml.
10-ml. size

*Equivalent to cephalexin.

*Additional information available
to the profession on request.*

Eli Lilly and Company • Indianapolis, Indiana 46206



400123

The JOURNAL of the Kentucky Medical Association

ISSUED MONTHLY UNDER THE DIRECTION OF THE BOARD OF TRUSTEES

VOLUME 72

FEBRUARY 1974

No. 2

Viral Hepatitis Presenting with Urticaria

NIRMAL S. MANN, M.D.*, RAYMOND P. CLOUTIER, M.D.**,
WARLITO A. BAUTISTA, M.D.** and TIMOTHY J. FLANIGAN, M.D.***

Louisville, Kentucky

A case of viral hepatitis presenting with urticaria is reported. Urticaria, poly-arthritis, and serum sickness type of illness can occur in the prodromal period of viral hepatitis; pertinent literature is reviewed.

Case Report

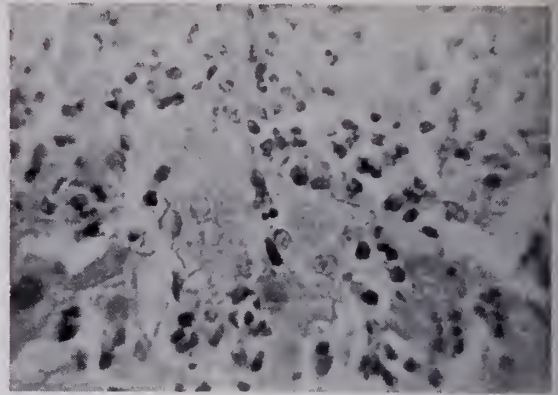
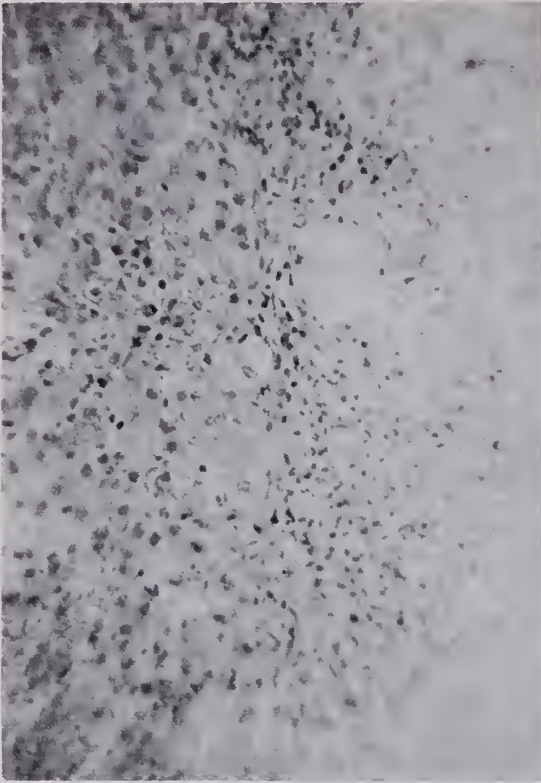
A 21-year-old white male (J.S.) was admitted to the Louisville Veterans Hospital on June 14, 1973, because of jaundice, weakness, and easy fatigability. About two weeks before admission he had a dental extraction and received local anesthesia (xylocaine). Two days later he developed generalized urticaria and developed pains in the joints and muscles; the joints were not swollen or tender. He was given oral steroids by a physician and his symptoms improved. But one week later he developed anorexia, with marked loss of taste for cigarettes, felt weak, and developed muscle and joint pains; he noticed his urine had become dark-colored. Patient had had dental work done twice before, under local anesthesia, without any problems. During the past year, four of his friends had developed hepatitis; two of them were known to be using parenteral drugs. The patient denied having used any medications on his own, denied sore throat or fever.

On examination he was fully conscious and in no acute distress. Sclera were icteric, a few posterior cervical lymph nodes were palpable and non-tender. Liver was palpable 3 cm below the right costal margin with a total span of 12.5 cm, smooth and tender; spleen was not palpable. There were areas of pigmentation on the back, trunk, and arms which were the sites of previous urticarial lesions. The joints were normal. A tourniquet test provoked macular lesions but no itching or urticaria developed. Urinalysis, chest x-ray, and ECG were normal as were BUN and electrolytes.

Hgb was 15.0; Hematocrit 45.7. Total white count 11,000, polys 66; lymphos 12; monos 13; eosinophils 2; no atypical lymphocytes were seen. Platelets were normal. Total protein was 6.5 with albumin of 3.5. Total bilirubin 8.5; direct 8.2; alk. phosphatase 12.4 (normal 2.5-4.5); SGOT 1140 (normal 8-38); SGPT 950 (Normal 3-30). Protime 12.3/15.7. Monospot test was negative, on repeat testing it was weakly positive. Rheumatoid factor was negative. Antinuclear antibody and L.E. tests were negative. Febrile agglutinins were negative. Hepatitis associated antigen (Australia antigen) was positive in a titer of 1:256. A liver biopsy was performed with a Menghini needle. The portal areas were markedly infiltrated with inflammatory cells which were a mixture of polymorphonuclears and monocytes; there was some Kupfer cell hyperplasia, intrahepatic cholestasis, hepatocellular necrosis with ballooning of the hepatocytes. (Figures 1 and 2)

During his hospital course, the patient's

*Assistant Professor of Medicine, **Residents in Medicine, ***Intern in Medicine, Department of Medicine, Section of Gastroenterology, University of Louisville School of Medicine and V.A. Hospital, Louisville



← FIGURE 1

↑ FIGURE 2

clinical condition improved, his appetite returned; the liver returned to normal size and became non tender; his icterus disappeared. The liver function tests gradually improved and the patient was discharged three weeks after admission.

Discussion

Although the association of urticaria, fever and arthritis was described in the last century¹, this syndrome has only recently been emphasized. In viral hepatitis, the incidence of skin lesions is about five per cent and most of them are of the urticarial type; the skin lesions most frequently occur in the preicteric phase²⁻⁴ but also have been described in the icteric phase. Blotchy erythema, purpura and a scarlatiniform rash⁵ have also been described in association with viral hepatitis. The mechanism of production of urticaria is not definitely known but the liver seems to play an important role as urticaria has been reported in association with infectious mononucleosis with liver involvement.^{6,7} It is possible that an antigen is released from the liver and the antigen-antibody complex in the presence of complement gets absorbed on the mast cells with the release of histamine and production of urticaria.⁷

Acute polyarthrititis, resembling rheumatoid arthritis and a serum sickness like syndrome has been described in association with viral hepatitis.^{8,9} The observation that joint and skin manifestations closely correlated with high titer of hepatitis-associated antigen and depressed levels of complement, suggest that this syndrome may be caused by circulating immune complexes.⁹ In the present case Australia antigen was positive in high titer.

The occurrence of urticaria and/or polyarthrititis should alert the physician to the possibility of underlying viral hepatitis and appropriate studies should be instituted in such cases. In some cases, localized urticaria can be induced distal to the application of a tourniquet.⁸ In the present case, application of a tourniquet did not cause urticaria, but produced macular skin lesions. Icterus can get localized early in the urticarial lesions even in the preicteric phase¹⁰ and this "yellow-hive" sign may be diagnostically helpful.

References

1. Graves, R. J.: *Clinical Lectures on the Practice of Medicine*. Dublin, Fannin & Co., 1843, pp 937-938.
2. Bockus, H. L.: *Gastroenterology*. Philadelphia, W. B. Saunders Co., 1970, p 339.
3. Arstenstein, M. S., Denis, D. J.: Recent advances in the diagnosis and treatment of viral diseases of the skin. *New Eng. J. Med.* 270: 1101-1111, 1967.
4. Findley, G. M., Martin, N. H., Mitchell, J. B.: Hepatitis after yellow fever inoculation. *Lancet* 2: 301-307, 1944.
5. Prestia, A. E., Lynfield, Y. L.: Scarlatinaform eruption in viral hepatitis. *Arch. Derm.* 101: 352-355, 1970.
6. Afrik, J. A., Halprin, K.: Infectious Mononucleosis presenting as urticaria. *JAMA* 209: 1524-1525, 1969.
7. Cowdrey, S. C., Reynolds, J. S.: Acute urticaria in infectious mononucleosis. *Ann. Allerg.* 27: 182-190, 1969.
8. Fernandez, R. and McCarty, D.: The arthritis of viral hepatitis. *Ann. Int. Med.* 74: 207-211, 1971.
9. Alpert E., Isselbacher, K. J. and Schur, P. H.: The pathogenesis of arthritis associated with viral hepatitis. *New Eng. J. Med.* 285: 185-189, 1971.
10. Clarke, G.H.V.: Cold urticaria. *Arch. Derm.* 100: 121-125, 1969.
11. Lockshin, N. A. and Hurley, H.: Urticaria as a sign of viral hepatitis. *Arch. Derm.* 105: 570-571, 1972.

(Acknowledgement to W. I. Hall for photos)

Rheumatic Fever Presenting as an Acute Abdomen

CHRISTOPHER J. HARRISON, M.D.

Bardstown, Kentucky

Two case histories of rheumatic fever are reported, the first presenting with non-specific symptoms at first and then later as an acute abdomen, and the second presenting as a possible acute abdomen.

TEXTS and articles on rheumatic fever and its presentation often list abdominal pain or acute abdomen as unusual presentations in up to 10% of cases, but give little, if any, information as to when and how they fit into a symptom complex. Thus, these case histories are presented to make the index of suspicion higher when the problem of persistent fever and migratory signs and symptoms leading to acute abdomen are present.

Case #1: This is an eight-year-old female presenting as an outpatient with headache, nausea, and epigastric pain. Her fever was 103° oral, but the physical exam was negative except for posterior cervical adenopathy. She was given no medication and was to be observed at home. Forty-eight hours later, with no change in symptoms and the fever still 103° oral, an additional finding of left lower lobe rales were noted. The chest x-ray revealed only small lingular streaky infiltrate. The CBC revealed Hgb 11.6, Hct 36, WBC 24,100 with differential 65 segs, 4 stabs, and 31 lymphs. The urinalysis showed negative protein and sugar, positive ketones and negative microscopic. The patient was treated with 1.2 million procaine penicillin I.M., followed with 400,000 units oral penicillin V q.i.d. as well as an expectorant. Eighteen hours later, after 48 hours of anorexia and no bowel movement, as well as continued fever of 102.4° oral with prostration, the patient returned. The pharynx and lungs were clear with persistent adenopathy, however, slight distention of the abdomen with generalized tenderness was noted. There was also guarding and rebound in the RLQ without appreciable bowel sounds

and no masses.

The patient was admitted to the hospital with surgical consultation. The chest x-ray had cleared by this time. Hct was 39, WBC 34,000 with 79% segs, 18% stabs, and 3% lymphs. The urinalysis revealed many crystals, 1+ albumin and acetone, but otherwise negative. The patient was thought to have an acute abdomen and was explored but found to have only enlarged mesenteric nodes with some clear fluid in the abdominal cavity. A culture of the fluid was negative, but the patient was placed on 500 mg cephaloridine I.M. every six hours for five days. After five days of cephaloridine, the abdominal symptoms had subsided but the fever persisted at 102.4° oral with prostration. Thus all medications were discontinued. The tuberculosis skin test was negative as were L.E. preps and febrile agglutinins.

Three days after discontinuing medications, the patient developed hot, painful joints in the right wrist and ankle. A II/VI systolic soft murmur in the pulmonic area and down the LLSB was noted. WBC was 30,500 with 75 segs, 6 stabs, 15 lymphs, and 4 eos. The EKG revealed sinus tachycardia and "some evidence of right ventricular hypertrophy." CPK was positive, ASO titer 650 todd units and ESR 47. The blood and throat cultures were negative, but urine subcultures grew Beta hemolytic streptococci, greater than 100,000 colonies. The patient was started on ASA ten grains every six hours as well as oral penicillin V 400,000 units four times a day. Within 24 hours the patient was afebrile and asymptomatic, and the murmur had disappeared. WBC was 18,100 with 86% segs and 14% lymphs. After 10 days ASA was discontinued and the penicillin was decreased to prophylactic doses without return of symptoms. WBC was 9,400 with normal differential and ESR 22. She remains asymptomatic four months later without signs of cardiac involvement on penicillin prophylaxis.

Case #2: A 12-year-old male was admitted from the emergency room for generalized ab-

dominal pain of one day's duration. He was observed to rule out acute appendicitis. His parents and he denied any URI or sore throats in the last month. Temperature was 101.4° oral, B.P. 100/70, P 110 regular, and R 20. Physical examination revealed cervical anterior and posterior adenopathy, clear pharynx and chest, but generalized abdominal tenderness with marked guarding in both lower quadrants. Rectal revealed bilateral tenderness not severe. Surgical consult was of opinion this might be an early appendicitis. CBC showed Hgb 12.5, Hct 40, WBC 13,000 with 71 seg, 16 stabs, and 13 lymphs. Urine revealed only rare WBC and trace albumin. Patient was kept NPO (nothing by mouth) and given 600,000 units procaine penicillin I.M. and 40 mg meperidine I.M. for pain. He was to be rehydrated for possible appendectomy. However, after 12 hours, patient was afebrile and asymptomatic, thus it was decided that this must have been either gastroenteritis or mesenteric adenitis. Patient was discharged on penicillin V 400,000 units q.i.d. for five days and clear liquids for 48 hours. Seven days after discontinuing the penicillin, the patient was seen as an outpatient for similar symptoms: T 102.4° oral, RLQ tenderness, and headache. Physical examination revealed persistent anterior cervical adenopathy and tenderness without rebound or guarding over RLQ. He was observed at home this time. There was no change in symptoms 24 hours later, however, there was a II/VI apical systolic murmur heard at the apex radiating up the LLSB to pulmonic area. Monospot was negative, urinalysis was negative to stick and microscopic. CBC showed 8,300 WBC with 57 seg, 9 stabs, and 14 lymphs. ASO titer was 1,328 todd units and sed rate was 41.

The patient was treated with 1,200,000 units of benzathine penicillin G I.M. and 10 grains aspirin q.i.d. The patient became asymptomatic in 48 hours. Two weeks later, the murmur was coarser; sed rate was still 40. Aspirin was discontinued, but rest continued.

One month after initiating treatment, the murmur was unchanged. Sed rate was 18. Oral penicillin prophylaxis was begun and activity resumed. He continues to be followed as an outpatient.

This is an article concerning unusual clinical presentations of rheumatic fever. Case #1's

first presentation was consistent with viremia but evolved into a picture of mild pneumonitis. Then 70 hours later the presentation was of acute abdomen that was found to be sterile mesenteric adenitis. It was only eight days later, after 72 hours without any medication that the more classical signs and symptoms of rheumatic fever arose.

Case #2 presented as a possible appendicitis but while making the patient more suitable for surgery, the patient became asymptomatic. Thus mesenteric adenitis was thought to be the diagnosis. Two weeks later, the patient presented with almost identical complaints and within the subsequent 24 hours developed a murmur.

It is interesting that carditis was delayed and/or transient in both cases as was joint involvement, while mesenteric adenitis appeared earlier. Symptoms of rheumatic fever in both were delayed probably by the use of penicillin. This delay of symptoms by penicillin early in the course of disease is important to note for many physicians who find it expensive and impractical to culture every URI, pharyngitis, or bronchitis that he treats as an outpatient.

It could be argued that the abdominal symptoms and mesenteric adenitis were not part of the rheumatic fever complex, but were a result of the initial streptococcus infection. This possibility cannot be completely excluded, but streptococcus is not considered routinely as a cause of mesenteric lymphadenitis. Thus whether the abdominal pain and adenitis are an integral part of the rheumatic fever or merely a precursor, it is important that physicians be aware of this sequence. It would also appear that in lymphadenitis when any penicillin is used for therapy of the adenitis or concurrent infections, treatment should be the same as if it were a streptococcal infection unless there is certainty of another agent.

Physicians outside of large clinics or hospitals must weigh cost to the patient's family versus the necessity for the "complete" ideal workup in an outpatient situation. This article is presented to profile another masking presentation of rheumatic fever to make the index of suspicion higher in atypical situations of abdominal pain.

Bibliography on Request

The Psychological Trauma of Sex or Lack Thereof†

NANCY A. ROESKE, M.D.*

Indianapolis, Indiana

WHENEVER I am asked to give a speech, I am always interested in knowing to whom I will be speaking and at what time of day. When I discovered that I was speaking just before lunch, it reminded me of a research study on the effects of starvation done upon conscientious objectors at the University of Minnesota during World War II. One finding was that sexual fantasies were replaced by food fantasies in these young adult male subjects. Germane to this talk was the fact that the men had to be starving before they stopped thinking about sex.

In considering who you are and what I should say to you, I wondered how many of you already think of yourselves as a consultant in sexual and marital problems. Clark Vincent, M.D., has pointed out that, whether or not a physician considers himself a consultant in sexual and marital problems, his patients will! Therefore, no matter whether the physician is knowledgeable and encourages his patients to talk about their problems, or the physician is uncomfortable and/or ignorant and encourages his patients to ignore the problems, the patient has come to the physician whom he expects to be an expert. Sexual function is not only equated with masculinity and femininity in our patients; it is also equally important to us. Thus, we must be aware of our own attitudes and feelings and how comfortable we are with ourselves. The physician who treats his patients' sexual and marital problems needs periodically, if not continually, to examine and make explicit to himself his assumptions about the relative value, integrity, emotionality, strength, sensitivity, and intelligence of males versus females.

Some of the questions we must ask ourselves about our attitude are: can we accept our own bodies as good, healthy, and pleasur-

able; can we accept our own feelings of anger, fear, guilt, depression, and fatigue or our feelings of hope, joy, and comfort; do we understand how these feelings may influence our sexual and marital relationships. If we cannot have flexible attitudes and feelings, comfortable attitudes towards ourselves and our sexual relationships, then we should recognize this as a fact and refer our patients to another physician who does sexual and marital counseling or to a marriage counselor. In our culture it is easy for a physician to refer a patient to another physician who is an expert in heart surgery. A physician who can do heart surgery versus a physician who cannot do heart surgery has no implications as to whether or not the physician is less of a man or a woman which may be felt to be the implication when the physician makes a referral for sexual counseling. It is very difficult to refer these patients because such a referral is a seeming admission on the physician's part that he lacks expertise and a sense of personal adequacy.

Yet you must have more than personally gratifying experiences in order to counsel patients. I expect that most of you, like myself, had few, if any courses in sexual and marital counseling in medical school. We have had to depend upon postgraduate medical training, state medical meetings such as this, or reading articles and books. Since it is impossible to have you leave this talk educationally sophisticated about the etiology and treatment of your patients' sexual dilemmas, I would recommend a recently published excellent book entitled *Sexual and Marital Health, The Physician as a Consultant*, (McGraw-Hill Book Company, 1973) by Clark E. Vincent, M.D., a specialist in obstetrics and gynecology at Bowman Gray Medical School.

Having acknowledged the need for personal ease and a pertinent education, let us look at a few of the problems your patients bring to you and your response. Sexual and marital health

†Presented at the 1973 KMA Annual Meeting on September 20 in Louisville

*Associate Professor, Department of Psychiatry, Indiana University Medical Center, Indianapolis

are based, in part, on the health of the two individuals involved. The integration of their physical and psychological lives will be apparent in their ability to love and be loved. But even two individuals, healthy and well integrated personally will occasionally experience difficulty in marital and sexual communication. The physician who is willing to serve as a consultant will be confronted with an almost infinite number of highly specific questions as well as very vague queries about sex. As a consultant the physician can rely upon his medical training in interview techniques and knowledge of medical procedures. His response to any of the patient's questions will be based on at least three considerations: the basic information he has or can obtain about the patient and his or her problems; the theories which explain the problem in anatomical, physiological, and biochemical terms; and the patient's attitude toward his illness and distress. Thus the physician asks for detailed information about the problem; e.g., the common female complaints of coital pain and lack of sexual response: what kind and degree of pain; the frequency of the pain; when is it experienced and under what conditions? The most common complaints of males are premature ejaculation and impotency. For women and men, it is a problem of either too much or too little.

There has been a distinct change in the complaints by men and women who seek help from their physicians over the past 40 to 50 years. In preparing for this talk, I asked my mother, who practiced obstetrics and gynecology for almost 50 years, what were the complaints of her patients 40 years ago, and had she seen any change in these complaints over the years. She commented that 40 or 50 years ago a wife never complained directly about her husband's demands for coitus or her lack of gratification. Instead she would complain how he was never home, would not help her, and gave her little money. The husband did not complain either. He found entertainment and relaxation elsewhere. Twenty-five years ago women complained that the husband demanded coitus too frequently, and that it was a wife's duty to comply. Within the past 15 years women have been stating more openly that their sexual relationship was not satisfying.

Whether or not one wishes to attribute this change in attitude to women's liberation, the fact is that women are asking physicians to help them and their husbands to achieve a significant change in their marital relationship. They are asking for this change at a time when men are being asked to perform even more quickly and effectively at their jobs. Thus, there is all the more reason for the physician to be a compassionate expert and understand the current dilemma for wives and husbands. The dilemma of the wife is one of irritability, depression with a lack of gratification, and of the husband, anxiety to the point of impotency or premature ejaculation with the constant pressure for superior performance.

One of the reasons for failure of some women over 30 years of age to experience sexual pleasure with their husbands relates to the impact of traditional mores and the resultant physiological conditioning. The male often starts self-caressing as an adolescent. His purpose is to achieve orgasm. His masturbation may be chided and produce guilt, but he usually learns to achieve orgasm. The female may have become increasingly stimulated sexually during adolescence, often became excited and reached a plateau stage, but she probably has not had frequent orgasms prior to marriage if she is over 30 to 35 years old. Thus, she learned, if she was to be a good girl, that she should stop short of orgasm. She has conditioned herself to get excited and then stop, therefore setting up a pattern of excitation inhibition, and frustration. The woman may avoid intercourse because it only creates tension, irritability, and a feeling of being used by the man.

Although women are more willing to talk about their lack of sexual response and their wish to enjoy sexual intercourse, many still need support and encouragement given by the direct questions of the physician. For example, when a patient indicates she has a problem which she feels the physician cannot help, it can be quite supportive if the physician's next question is whether she enjoys sexual intercourse. After a discussion of the woman's feelings, her intent to discuss the problem with her husband, or their past discussions and their inability to find a solution to the problem, it is essential that the physician make an ap-

pointment to see the patient and her husband together. Often such a joint interview with husband and wife will eliminate the necessity for several visits for the wife alone. It is useful for the physician to call the husband himself and to answer any questions the husband might have about the necessity for his being seen with his wife. A husband may be embarrassed, angry, or disgusted with his wife's attempts to involve him. He may also be relieved and desire help from an outside expert, particularly if the physician conveys to him that his wife's fatigue, headaches, or low back pain do not require further expensive medical care. The physician must convey the impression that he is not blaming the husband.

When the couple is first seen alone, it is important to establish whether or not the wife has ever had an orgasm. The physician can demonstrate an equivalent by breathing rapidly and then completely relaxing. The wife and husband may recognize that she may become excited, breathe rapidly, but never relaxes. Most couples also need a diagrammatic explanation of the difference between females and males in excitation, plateau, and orgasm. A female becomes excited and may have clitoral peaks of excitement but never go on to complete orgasm; whereas a male usually moves from quiescence through excitement with little or no plateau into orgasm. If the female has learned to inhibit herself at a plateau state, the physician must help the couple undo her childhood myth and undo a physiological conditioning. The myth is that nice girls or ladies do not lose control and being freely expressive sexually is acting like an animal. For the male, the myth is that a male is an expert in sexual pleasure and, if he experiences disappointment and failure on his job, his sexual power can be a quick reassurance to his masculine ego, or his lack of sexual performance indicative of his lack of masculinity.

In such an atmosphere, the physician must be supportive, patient, understanding, non-blaming, and demonstrate his sensitivity by his questions about the details of the techniques used in their marital relationship. By his openness in the discussion, he should set an example of free communication for the couple. The wife must learn to undo her inhibitions and become

erotically sensitive to her own body and convey her awareness of her own body to her husband. She has to tell her spouse what to do. This change in the relationship may make the husband feel defensive, if not threatened. The husband may not mind being asked to wash his wife's back and being told where to scrub. But, when he is asked to feel her in another context, that of coitus, he may become defensive and inhibited. He is no longer the expert. The physician can help the couple look at whether the husband being so directed is equivalent to questioning his masculinity. At first any couple may feel that dwelling on techniques of love making seems contrived, mechanical, and even awkward, and so they are. But, if the couple are to solve their problems, they must be willing to undo deeply engrained patterns, techniques, attitudes, and feelings. In their practice of techniques, the husband and wife should not only discuss but try a wide variety of sexual behaviors which may, initially, have strong taboos for them. The physician can remind them that it is difficult to change any patterns of behavior. For example, have any of you tried eating vegetables or even chocolate fudge cake with ice cream and coffee for breakfast? Somehow it just does not taste the same, not even as good. The physician's role in listening and guiding his patients' questions and thinking is to reassure them that they need practice; that they must have patience, and change will take time.

Often couples will state they have no time because they have children who stay up until all hours or get up early, and there is little time for sleep. Yet children can learn to respect closed, or even locked doors or the fact that the parents may send them off to a movie for an afternoon or evening, or even that the parents may take off for a weekend alone.

Whether we are physicians or patients, whether or not we are having problems in our own marital relationship, we all need to experiment with variations in our sexual relationship in order to avoid the bored-with-sex-with-spouse syndrome. Marital sex, just like marital eating or marital recreation becomes boring when it becomes routine and monotonous, e.g., the wife who prepares the same food exactly the same way; the husband who always chooses the same restaurant. The senses need to be

stimulated by a variety of content, timing, location, dress, and conversation.

The current problem is that many husbands are so exhausted from having to prove themselves professionally all day they are either reluctant to prove themselves as marital lovers at the end of the day or do so rapidly and without sensitivity for their wife. They even may reverse the courtship process and wait for their wives to turn them on. But the wife, too, may be so weary from proving herself as mother, working woman, homemaker, and community contributor that she has little energy left for being seductive. Such an impasse necessitates a reordering of the priorities of life. How important to the couple is a stimulating and gratifying sexual relationship? Periodically a couple's sexual activities should have first call on their time, energy, and creative planning.

This discussion of the physician as a consultant is predicated on the assumption that the couple is reasonably mature. If they are to change their relationship, it requires that each has an adequate self-love, an ability to listen to their partner's impression of reality, an awareness of the myth that healthy sex is unnatural, and an awareness of the continuing influence of the negative ideas and attitudes learned in childhood. The establishment of an adequate self-concept and self-love or esteem is a lifelong quest. One's identity is not established by the sexual act or by being told that he is a strong boy or she is a pretty girl. The physician can help couples recognize that excessive bragging about one's self, criticism of the partner, silence and withdrawal from interacting, and striving for perfectionism, indicate decreased self-esteem.

As previously mentioned, having been taught all his life that a man proves his worthwhileness by what he does and achieves, he has little awareness or understanding of his wife's childhood and adult orientation to affirm her self-worth by being able to attract and maintain his daily attention and compliments as she did during courtship. When either a man or woman feels threatened in his or her self-regard, bragging, criticism, or silent withdrawal may be effective means for coping with a diminished self-esteem.

The ability to listen to the marital partner's

impression of what happened is a very complicated endeavor. Each of us has an idea of what he or she is like which may be vastly different from what another person thinks of us and quite different again from what we think the other person thinks of us. An interesting technique to amplify and illustrate this point is to ask a couple to make independent lists of the most happy, pleasurable times that they have had together during the years they have known each other and another list of the most painful distressing times. It can be quite revealing for a couple to compare and talk about each other's lists. Differences are frequently more common than agreement!

Making their lists can increase the couple's awareness that getting married did not suddenly create a naturally healthy sexual and marital relationship, and that the negative ideas and attitudes which they may have learned from their own family experiences is a continuing influence in their lives. This last relationship between marital health and healthy child development brings us full circle to the impact of a poor marital relationship upon the psychological development of the children. Any husband or wife who does not experience emotional support and harmony with his spouse, then turns to the next most accessible source of such support, his or her children. The child, who is dependent and wishes to please one parent and hence be told that he is special or a very important person, will respond to the parents' interest and demands. This pathological bond between parent and child may vary from the child merely being asked to substitute for the marital partner by listening or talking to going to a movie or out to dinner to having coitus with the parent. Although the eventual harm to the child's psychological development may vary, in every instance where a child is a stand-in or substitute for a marital partner, one day, as an adult, he must struggle to free himself from that bond if he attempts to form a mature marital relationship. Therefore, the good marriage is a primary preventer of emotional disturbance in children. Furthermore, it is a primary preventer of future marital discord and disturbances in the next generation. The physician can determine whether or not the children are being used as substitutes in the marriage by asking the couple about their

children; how they each perceive the child's closeness and role; does the mother approve the boy's identification with his father; does the father approve the daughter's closeness and identification with the mother. Sometimes very vivid demonstrations of the children's alliances within the family can be demonstrated if they are seen with the parents. Seeing which child sits close to which parent and how they react to the parents' comments quickly tells the phy-

sician who sides with whom in the family. And, finally, when seen alone, children often will be relieved to tell how they perceive the parents' relationship and their own role in it.

In closing, I would like to come even fuller circle and back to my initial comments about you as physicians, and state that the most effective, if not humbling way for each of us to learn about sexual and marital health is to practice it with our spouses.

Manuscript Memos

Manuscripts should be submitted in duplicate to The Journal of KMA, an original copy and one carbon, and typed with double spacing. Maximum length of an article should not exceed 4500 words; the Board of Consultants on Scientific Articles prefers that they be briefer than this when possible.

In submitting a manuscript, the author is requested to include a concise summary, not to exceed 35 words, to be used as a sub-title when the article is published in The Journal. The purpose of the summary is to create additional interest and encourage greater readership.

Footnotes and bibliographies should conform to the style of the Quarterly Cumulative Index Medicus published by the American Medical Association. This requires in the order given name of author, title of article, name of periodical, with volume, page, month—day of month if weekly—and year. The Journal of the KMA does not assume responsibility for the accuracy of references used with scientific articles.

All scientific material appearing in The Journal is reviewed by the Board of Consultants on Scientific Articles. The editors may use up to six illustrations with the essayist bearing the cost of all over three one-column halftones.

Arrangements for reprints of an article should be made directly with the publisher of The Journal, Gibbs-Inman Printing Company, 817 W. Market St., Louisville, Ky.

The bylaws of the Kentucky Medical Association provide that all scientific discussions and papers read before the KMA Annual Meeting shall be referred to the KMA Journal for consideration for publication. The bylaws further state that the editor or the associate editor may accept or reject these papers as it appears advisable and return them to the author if not considered suitable for publication.

Please mail your scientific articles to The Journal of the Kentucky Medical Association, 3532 Ephraim McDowell Drive, Louisville, Kentucky 40205.



GRAND ROUNDS



The University of Louisville School of Medicine

This Journal feature will be presented alternately by the University of Louisville and the University of Kentucky Departments of Medicine and Departments of Surgery. We hope to have these features revolve around subjects of immediate practical interest to the practicing physician; and, for those of us not able to attend grand rounds in the teaching centers as often as we might, we hope this will represent a bit of a refresher course.

Postoperative Renal Failure Following Methoxyflurane Anesthesia

The differential diagnosis of renal failure or polyuria in the postoperative period should include consideration of the nephrotoxicity resulting from the anesthetic agent. Two cases of acute renal failure are reported following methoxyflurane (Penthrane). The diagnosis is best established by renal biopsy.

Case Presentation — #1: A 77-year-old white female presented with weakness and mild rectal bleeding. Preoperative urinalysis, urea nitrogen, and electrolytes were normal. Carcinoma of the ascending colon was documented. A right hemicolectomy with an ileo-transverse colostomy was performed under methoxyflurane (Penthrane)-nitrous oxide-oxygen anesthesia and lasted two hours and 43 minutes.

During the first three weeks following surgery the urine volume ranged from 900 to 2,500 ml per day. On the 25th postoperative day the urea nitrogen was 51 mg and 115 mg on the 35th day with a serum creatinine of 10.2 mg per 100 ml. Because of persistence and progression of renal failure with the development of nausea and vomiting, the patient was referred to the Division of Nephrology and Hypertension of the University of Louisville in the ninth postoperative week.

Examination revealed an elderly, well-nourished, slightly obese female who did not appear dehydrated. Blood pressure 170/80 mm Hg. There was no peripheral edema. Results of laboratory tests were: hemoglobin 11.4 gm, hematocrit 33, WBC 9,900, sodium 135, potassium 3.0, chloride 100, and bicarbonate 18 mEq/liter. The serum creatinine was 12 mg, and the urea nitrogen 118 mg per 100

ml. Peritoneal dialysis was begun with rapid symptomatic improvement. An infusion pyelogram showed normal sized kidneys with no evidence of obstruction. Bilateral selective renal arteriograms revealed both arteries to be patent but with "pruning" of the distal parenchymal branches. A percutaneous renal biopsy showed interstitial fibrosis, edema, and cellular infiltration. Many tubules had atrophic epithelium, were dilated and contained calcium oxalate crystals. Occasional glomeruli were hyalinized and others showed focal membranous thickening of the capillary basement membrane (Figure 1).

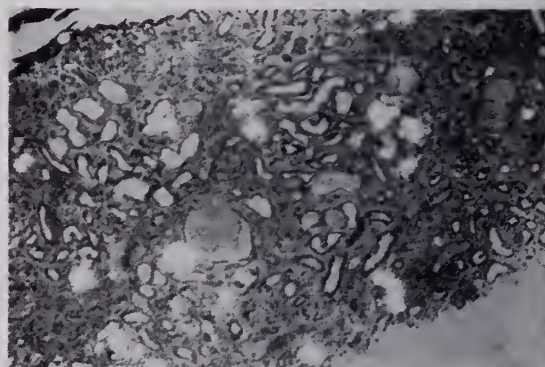


FIG. 1 (Case 1) Low power view of renal biopsy with polarized light. The pale areas represent calcium oxalate in renal tubules.

Case Presentation — #2: A 71-year-old black male presented with melena. A duodenal ulcer was demonstrated one year previously. On admission urinalysis was normal and the blood urea nitrogen was 40 mg, falling to 17 mg per 100 ml three days later. Esophagoscopy, vagotomy, and pyloroplasty were performed under methoxyflurane-nitrous oxide-oxygen anesthesia and lasted three hours and nine minutes.

During the first five postoperative days the urine volume ranged from 550 to 1150 ml. On the fourth postoperative day the urea nitrogen had risen to 52 mg, and to a peak of 136 mg by the 16th postoperative day at which time the serum creatinine was 7.8 mg per 100 ml. He was anuric from the seventh to 12th postoperative day and this coincided with a left upper lobe pneumonia. Thereafter, daily urine volumes ranged from 600 ml to 2,800 ml. Death occurred on the 22nd postoperative day, at which time the urea nitrogen was 87 mg, serum creatinine 5.4 mg per 100 ml and the urine volume exceeded 1,000 ml. The postoperative course was complicated by bilateral bronchopneumonia and wound infection which occurred following deterioration in renal function.

At autopsy both kidneys were normal in size and, microscopically, showed interstitial fibrosis and edema with many dilated tubules occluded by calcium oxalate crystals. Extensive round cell infiltrates were present. The walls of most small arteries were thickened and a moderate number of glomeruli were hyalinized. (Figures 2 and 3).

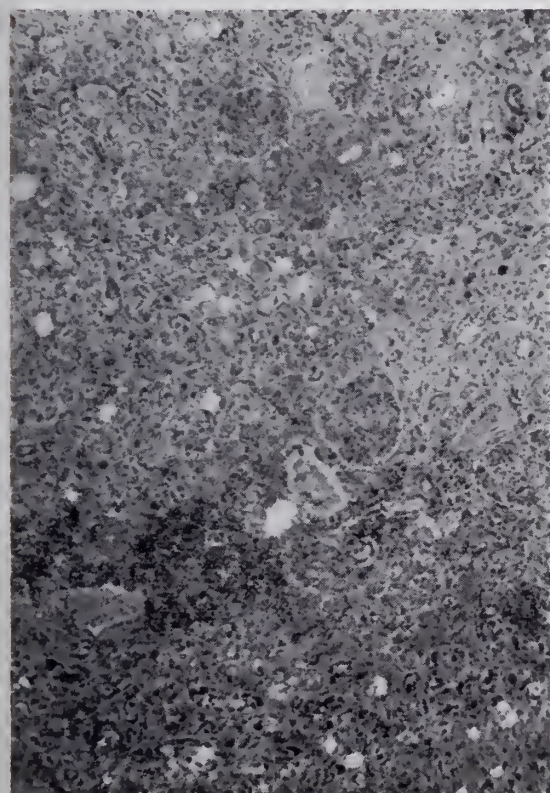


FIG. 2 (Case 2) Low power view of section of kidney photographed with polarized light showing extensive oxalate deposition (pole areas).

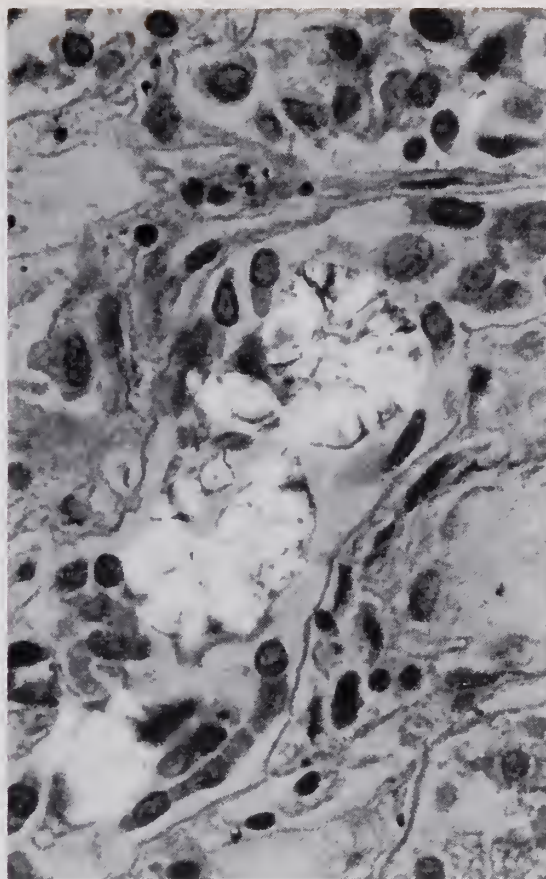


FIG. 3 (Case 2) High power microphotograph with polarized light showing calcium oxalate in the renal tubule.

Discussion

Methoxyflurane (Penthrane) is 2, 2-dichloro-1, 1-difluoro-ethyl methyl ether. Synthesized by Larsen in 1958 and used clinically in 1959, nephrotoxicity was not clearly recognized until 1966¹, although in 1964, calcium oxalate deposition was described in two patients who died of renal failure after methoxyflurane anesthesia². In anesthetic concentrations it is non-flammable and non-explosive in air or oxygen.

Three patterns of methoxyflurane nephropathy have been recognized:

- a. Pitressin resistant nephrogenic diabetes insipidus with polyuria and hypernatremia unless appropriate fluid replacement is given.
- b. Nonoliguric renal failure with normal to high daily urine volumes and progression of renal failure, even with adequate fluid and electrolyte therapy.
- c. Oliguric renal failure which is generally irreversible.

The histologic appearances associated with renal failure have included severe interstitial fibrosis with focal and diffuse round cell infiltrates tubular necrosis, and dilatation with abundant crystalline birefringent material resembling calcium oxalate and with occasional giant cells surrounding the crystals. Some glomeruli show an increase in mesangial matrix, hypercellularity, and thickening of the capillary basement membrane. After development of renal failure a progressive shrinkage of renal mass has been observed³.

In both instances postoperative renal failure developed before oliguria or anuria occurred. A reduction in urine volume was recorded in Case #2, associated with pneumonia but this was preceded by a rising blood urea nitrogen. In neither patient was hypotension or hypovolemia documented before, during or immediately after surgery. Neither patient received potentially nephrotoxic antibiotics before developing renal failure and both had daily urine volumes in excess of 1 liter at the peak of urea nitrogen and serum creatinines. Neither had evidence of renal vascular occlusion or ureteric obstruction. Case #2 received a blood transfusion prior to surgery but renal function was normal before methoxyflurane was administered.

Cases of prolonged and irreversible oliguric and polyuric renal failure occurring after methoxyflurane have been reported where there was no other obvious cause for acute renal failure. While minor degrees of renal dysfunction may appear in 10 to 20 days, persistent renal failure has been documented suggesting that renal failure associated with methoxyflurane may be unusually persistent. Predisposing factors include prolonged anesthesia, exposure to high concentrations of methoxyflurane, obesity, synergism with other potential nephro-

toxins, hypovolemia, arterial and arteriolar nephrosclerosis. Precautions and recommended restrictions in the clinical use of methoxyflurane have been emphasized⁴.

Oxalate crystal deposition in renal tubules can occur in primary oxalosis, renal failure, ethylene glycol poisoning and renal transplants. The amount of oxalate deposition in the present reported cases is much greater than is usually seen in cases of renal failure unrelated to oxalosis or ethylene glycol ingestion⁵.

The mechanism for methoxyflurane nephrotoxicity has not been conclusively demonstrated. Two metabolic pathways yielding oxalic acid and fluoride have been described. Fluoride is possibly associated with the syndrome of nephrogenic diabetes insipidus while oxalate deposition with tubular necrosis and obstruction may be related to progressive renal failure. Nephrotoxicity has been correlated with the dose of methoxyflurane and serum inorganic fluoride concentration⁴. Adverse renal effects of other nephrotoxic agents, including tetracycline, appear to increase the toxicity of methoxyflurane. It should be avoided as an anesthetic agent in the elderly, prolonged surgery, and where potential or demonstrated renal dysfunction is suspected.

D. G. MARTIN, M.D.

D. NAGAR, M.D.

R. SCHACHT, M.D.

REFERENCES

1. Crandell, W.B., Pappas, S.G., Macdonald, A. Nephrotoxicity associated with methoxyflurane anesthesia. *Anesthesiology* 27:591-607, 1966.
2. Paddock, R.B., Parker, J.W., Guadagni, N.P. The effects of methoxyflurane on renal function. *Anesthesiology* 25:707-708, 1964.
3. Halpren, B.A., Kempson, R.L., Coplon, N.S. Interstitial fibrosis and chronic renal failure following methoxyflurane anesthesia *JAMA* 223:1239, 1973.
4. Cousins, M.J., Mazze, R.I. Methoxyflurane nephrotoxicity: A study of dose response in man. *JAMA* 225:1611-1616, 1973.
5. Fanger, H., Esparza, A. Crystals of calcium oxalate in kidneys in uremia. *Am. J. Clin. Path.* 41:592-603, 1964.

Bibliography Available Upon Request

SPECIAL ARTICLES

Public Education Program on the Early Warning Signs of Coronary Heart Attack

HOWARD B. McWHORTER, M.D.*

THIS article is to announce a statewide public education program on the early warning signs of acute myocardial infarction, that was launched January 1, 1974, by the Kentucky Heart Association. This program utilizes newspaper articles, radio and television spots, public addresses, and will continue throughout the 1974 calendar year. We not only plan to instruct the public as to the early warning signs of coronary heart attacks, but also plan to stress the chest symptoms which are not due to coronary disease, to prevent overloading the medical facilities in our State.

Coronary heart disease is the leading cause of death in the United States today and claims more lives than are lost to cancer, stroke, and accidents combined. More than 1,000,000 persons suffer coronary heart attacks each year in this country. Fortunately, because of recent advances, a large and increasing number of patients survive a first and even a second heart attack, and a majority of these patients return to productive lives. But we must do better than this, as 675,000 Americans died from coronary heart attacks in 1971. Approximately 350,000 of these deaths occurred before patients could reach a hospital, and 200,000 of these deaths occurred in persons less than 65 years of age.¹ Statistics show that in any given population of 100,000 Americans, about 500 new heart attacks occur each year and 293 of these will result in death.² In Kentucky this would be an estimated 16,000 coronary heart attacks yearly; 9,000 of these would be fatal; and 5,400 of these deaths would occur outside the hospital and before these individuals could reach medical help (Table 1).

Advances in the treatment of acute coronary heart attacks indicate that, now more than ever, the hospital is the place for a coronary victim to be. In the early 1960's, before coronary care units became commonplace, the hospital mortality for patients with acute myocardial infarcts was 30-33%.

The first hospital coronary care unit was established in 1962. Studies in the next few years revealed that approximately 50% of the deaths from myocardial infarcts were due to one of the two fatal arrhythmias — ventricular fibrillation or ventricular standstill. These catastrophic rhythms were found to be, almost invariably, preceded by more minor rhythm disturbances which could be treated prophylactically and prevent the development of these fatal rhythms. Also, effective methods were developed to treat ventricular fibrillation or standstill if it did develop. The results were so effective that today approximately one-half of this nation's hospitals have coronary care units, and the hospital mortality has been reduced from 33% to 15-17%.³

This dramatic decrease in hospital mortality has now leveled off, leaving any further reduction in mortality to finding some successful way of reaching the patients who die before they can be admitted to the coronary care unit. In the past several years there have been numerous studies of the "pre-hospital" phase of heart attacks. These studies reveal that approximately one-third of patients with acute myocardial infarction died outside the hospital, and account for 60% of the total deaths from this disease.⁴⁻⁶

In one study from Edinburgh (Table 2), 1,298 consecutive patients with acute myocardial infarction were followed from the onset of symptoms for the next four weeks, with a total mortality of 42%. Note that 35% of the

*President, Kentucky Heart Association.

total deaths occurred in the first hour, 50% of the deaths occurred in the first two hours, and 61% occurred outside the hospital and without medical help. You will also note that of all the deaths that occurred in the first four weeks, 90% occurred within the first 24 hours.⁴

Obviously, the first few hours after a coronary heart attack are the most dangerous. Further studies have revealed that the vast majority, and probably all, of these early deaths are due to ventricular fibrillation, which is a treatable and reversible arrhythmia. Fatal ventricular fibrillation frequently occurs in patients with very mild heart attacks, who otherwise have the greatest chance of long-term survival. The survival rate following primary ventricular fibrillation has so improved today, that if a patient is within range of immediate treatment then very few patients should be lost. The problem lies in getting the patient to the defibrillator in time, or getting the defibrillator to the patient fast enough.^{3,7}

A number of cities are now using mobile coronary care unit ambulances to bring the lifesaving benefits of cardiac monitoring and resuscitation to the patient at the point where he is stricken.^{7,8} This has proven to be quite effective, but it is very expensive and is not practical for most of the communities in our State.

Table 1

Annual Mortality from Acute Myocardial Infarction in the United States and Kentucky.		
	U.S.	KY.
Coronary Heart Attacks, 1971	1,000,000	16,000
Total Deaths From Coronary Heart Attacks	675,000	9,000
Total Deaths Before Patients Can Reach A Hospital	350,000	5,400

The most practical approach to reducing the very high mortality in the first few hours is to determine why these victims do not get to a hospital or doctor in time. "Transportation time" to a hospital is usually only a very small part of the average delay in reaching treatment. A recent report from Rochester, N.Y., a city of 350,000, revealed that their average transport time to a hospital was less than 30 minutes.⁹ Numerous other studies have shown that the "red tape" delay in hospital emergency rooms or admitting offices may be unduly prolonged, before the correct diagnosis is made and treatment started. Obviously, this admis-

Table 2

1,298 consecutive acute myocardial infarcts, followed from the onset through the first four weeks.

Mortality Rate, First Four Weeks — 42%

35% of Total Deaths	1st hr.
50% of Total Deaths	1st 2 hrs.
90% of Total Deaths	1st 24 hrs.
61% of Deaths Occurred Outside the Hospital.	

sion delay can be corrected by properly instructing our hospital personnel.

However, by far the greatest part of the delay in reaching treatment is due to "patient decision time" before starting to seek help (Figure 1). Various studies indicate that this delay may vary from 3 to 24 hours or longer, but perhaps averages 3 to 6 hours. Since 50% of the deaths from myocardial infarction occur in the first two hours, then patient delay alone may easily account for the 60% of deaths which occur before reaching adequate treatment.⁸⁻¹¹

Certainly, thousands of Americans die or risk death each year, simply because they are unable to recognize the early signs of a coronary heart attack and to seek help in time. Patients frequently fail to distinguish their symptoms from other minor complaints. However, most patients who die in the pre-hospital period have previously known coronary disease, and should certainly be expected to recognize their problem.⁶

Many patients delay seeking help because they are psychologically unwilling to face the possibility that they are having a coronary heart attack and simply deny the existence of the symptoms. Most of us have such an ingrained fear of a heart attack, that, when the pain strikes, we grasp at any alternative explanation—such as heartburn, indigestion, gas, etc. This brings on the unfortunate situation where "the patient is his own physician during the period of greatest risk." Another way of looking at this is that, at the present time, it is really the "survival of the fittest" for those patients who are able to reach a hospital in time.

PATIENT DECISION TIME BEFORE STARTING TO SEEK HELP	TRANSPORT TIME	HOSPITAL RED-TAPE DELAY
---	-------------------	-------------------------------



Figure 1. This is a composite of various reports of the average delay between onset of symptoms and admission to a coronary care unit, and the factors accounting for patient delay.

Decision delay by the patient or his relatives can only be shortened by a widespread public education program to recognize the early warning signs of heart attack, and to realize the importance of immediate medical care as a lifesaving measure. This appears to be the only practical means of decreasing the critical period of patient decision delay, and narrowing the gap between the onset of symptoms and the beginning of treatment. A public education program by the Missouri Heart Association several years ago effectively reduced their average patient decision time by nearly one-half.

The Kentucky Heart Association asks the cooperation of all members of the Kentucky Medical Association in this public education program. Workers throughout the state will be arranging speaking engagements for as many public groups as possible. Speakers' kits, slides, etc., will be provided by the Kentucky Heart Association. Many members of the Kentucky Medical Association will be requested to speak to public groups in their local areas, your co-

operation will be necessary for the success of this endeavor. We feel this program has the potential of saving as many lives in Kentucky as our coronary care units have done in the past.

References

1. Provisional Statistics, Annual Summary for The United States, 1971. National Center for Health Statistics, Public Health Service, U.S. DHEW, 1972.
2. Frank, Charles W.: H.I.P. of Greater New York, four year study of 110,000 men and women between the ages of 25-64 years. *Bull. of The N.Y. Academy of Med.* 44:900, 1968.
3. Lown, B., Klein, M. D., & Hershberg, P. L.: Coronary and pre-coronary care. *American Journal of Med.* 46:705, 1969.
4. Fulton, M., Julian, A. G., & Oliver, M. L.: Sudden death and myocardial infarction. *Circulation* 40 (Suppl. #4): 182, 1969.
5. Kuller, L.: Sudden death in arteriosclerotic heart disease—the case for preventive medicine. *Amer. J. Cardiol.* 24:617, 1969.
6. Kuller, L., Lillianfield, A., & Fisher, R.: An epidemiological study of sudden death in adults. *Medicine* 46:341, 1967.
7. Pantridge, J. F., & Adgey, A.S.: Pre-hospital coronary care—the mobile coronary care unit. *Amer. J. Cardiol.* 24:666, 1969.
8. Grace, W. J., & Chadbourne, J. A.: The mobile coronary care unit. *Dis. Chest* 55:452, 1969.
9. Moss, A. J., Wynar, B., & Goldstein, S.: Delay in hospitalization during the acute coronary period. *Amer. J. Cardiol.* 24:659, 1969.
10. Goldstein, S., Moss, A. J., & Green, W.: Sudden death in acute myocardial infarction—relationship to factors affecting delay in hospitalization. *Arch. Int. Med.* 129:720, 1972.
11. Hackett, T. P., & Cassem, N. H.: Factors contributing to delay in responding to the signs and symptoms of acute myocardial infarction. *Amer. J. Cardiol.* 24:651, 1969.

Some Approaches to Health Care Delivery: A Large County Society Approach†

McHENRY S. BREWER, M.D.*

IN response to the pressures of our time for improved methods of health care delivery, many of the larger county medical societies have formed foundations for medical care. The Jefferson County Medical Society has formed such a foundation. It is called the Medical Society Health Plan.

Stated briefly, the purposes of a medical foundation are (1) the delivery of high quality prepaid medical care at reasonable cost and (2) the preservation of our present system of medical care as regards free choice of physician and fee for service payments. To put it very simply, a foundation for medical care is a group of doctors who band together and agree to furnish prepaid medical care to some certain group of patients. This group may be the

employees of a company or some similar group. A fee schedule is agreed upon. The doctors in the foundation agree to exactly what fee they will charge for each service. The foundation also agrees to police, through appropriate peer review, the quality of care, the proper utilization of care, and the adherence to the agreed fee schedule.

You may now ask, "If the foundation is going to furnish this prepaid medical care, who is going to decide how much any group of patients will pay in advance for this service." This is where the insurance companies come in. With actuarial expertise an insurance company can determine what a group must prepay for a health benefit package based on a certain fee schedule and including the necessary peer review functions.

Now you probably are still having a difficult time understanding just how this prepaid health plan works out, so let me describe for

†Presented at the KMA Interim Meeting at Lake Barkley State Resort Park on Thursday, March 29, 1973.

*Immediate Past President, Jefferson County Medical Society.

you a hypothetical situation to illustrate how a foundation for medical care might work.

Let's suppose, for example, that all the doctors in Jefferson County agreed to participate in the Medical Society Health Plan. Then, suppose that we agreed to offer the International Harvester Company in Louisville a package of medical care for its employees to include specific services to be rendered for certain specified fees. If International Harvester expressed interest in purchasing this package, a fiscal intermediary such as Blue Cross-Blue Shield would be called in to actuarially figure out how much International Harvester would have to pay for the package. Maybe several insurance companies would bid for the role of fiscal intermediary in this contract between the Medical Society Health Plan and International Harvester. When a figure was agreed upon, International Harvester would pay to Blue Cross-Blue Shield this "X" number of dollars. From that point forward, an employee of International Harvester would continue to go to the physician of his choice in Jefferson County. The physician would submit his bill to Blue Cross-Blue Shield and receive payment from them. Prior to payment the claim would be reviewed by the peer review mechanisms set up by the Medical Society Health Plan.

Thus we see that each of the three participants in this adventure in health care delivery have certain responsibilities—(1) The purchaser, International Harvester, is responsible for paying "X" number of dollars in advance for medical care for its employees during the ensuing specified period of time. (2) The seller, the Medical Society Health Plan, is responsible for furnishing quality medical care to the employees of International Harvester for fees agreed upon in advance. It is also responsible for peer review of the quality of services rendered, the proper utilization of services and the appropriateness of fees therefor. (3) The fiscal intermediary, Blue Cross-Blue Shield, would accept the money from International Harvester,

pay the doctors and be at financial risk regarding the actuarial soundness of the contract.

Those who espouse the cause of foundations for medical care believe that this system will achieve several admirable results.

(1) It will permit industry to purchase comprehensive prepaid medical care for its employees.

(2) It will lower the cost of medical care in the following ways:

a) The fee schedule will keep all fees within a fair but reasonable range.

b) Overutilization of the services of hospitals and physicians will be curtailed by the peer review activities.

(3) It will raise the quality of medical care through application of peer review activities.

This foundation concept has worked well in other areas of this country particularly in the West. The first foundation for medical care was founded in San Joaquin County, California, in 1954. It was formed to combat the threat of a Kaiser Permanente take-over of medical care in that County. It has worked quite well there. Whether it will work in Jefferson County, Kentucky, remains to be seen. The biggest uncertainty is whether the majority of doctors in Jefferson County will be willing to band together in a foundation to offer this prepaid, comprehensive medical care. Unless the vast majority participate, it won't work.

We are still in the formative stages of our Medical Society Health Plan. As of this moment there is no immediate threat of a Kaiser Permanente type of operation coming into our area. It may be that we will furnish only peer review services in the immediate future. At any rate, it is an interesting new concept in health care delivery which would change very little our present method of practicing medicine. We feel fortunate to have the framework of our Medical Society Health Plan set up so that we can use it as seems appropriate in the future.



EDITORIALS



PSRO

THE Bennett Amendment—PSRO—became law about 16 months ago. In the interval since its passage a number of important actions have taken place:

(1) The Kentucky Foundation for Medical Care submitted a proposal, with wide support from most health-related organizations and agencies in the state, for a single statewide PSRO based on the peer review mechanism already functioning under the Foundation.

(2) The KMA House of Delegates authorized implementation of PSRO by granting its approval to the Foundation to enter into a contract with the DHEW while, at the same time, expressing its displeasure with the law and urging efforts to effect its repeal.

(3) The AMA House of Delegates, at its December meeting, approved a resolution almost identical to that adopted by KMA.

(4) Kentucky has been designated as one of 30 states which will have a single statewide PSRO—which is exactly what KMA and KFMC leadership worked so hard to obtain.

And yet, there are physicians in Kentucky and across the nation who are still protesting loudly and working vigorously to prevent the implementation of PSRO and bring about its repeal. They have even been successful in persuading a few state associations to adopt a position of "non-participation".

It is argued that the PSRO law will have a deleterious effect upon the quality, confidentiality and cost of medical care. A challenge to be specific about these undesirable effects seems indicated. If they are valid someone

should document these charges so that everyone may understand the issue.

There is no evidence that peer review, as it has been conducted by the medical profession in Kentucky for the past three or four years, and elsewhere for a longer period of time, has brought about a lowering of the quality of care, increased the cost, or destroyed the confidentiality of the physician-patient relationship. Quite the contrary is true, to the credit of the many physicians who have contributed their time to the review process from the local hospital level to the State committee.

It is quite doubtful that any significant number of physicians who have been involved in medical review fear PSRO but, contrariwise, one might suspect that those who oppose PSRO so vigorously have never had the opportunity or the inclination to serve on a review committee.

Kentucky medicine doesn't have to take a back seat to any one. It is foolhardy, however, to take the position that the quality of medical care in Kentucky cannot be improved, or that the quality is on the same level in all areas, or even in the various hospitals in the same community. Conscientious, effective utilization review—**by physicians**—in the hospital and on the county, district, and state levels is the most logical vehicle to improve that quality and, at the same time, control costs. PSRO gives us that opportunity, for the next two years, at least. Let's make it work! If **we** don't—think of the alternatives!

HBA

Rural Kentucky Medical Scholarship Fund— An Asset or Liability?

THE Rural Kentucky Medical Scholarship Fund is over a quarter of a century old and has served a laudable purpose. It has helped many students in financial need to receive a medical education, it has brought medical care to rural areas of Kentucky where it was needed, and it has shown the concern of the profession to assist both those interested in medical careers and those needing medical care. There are currently 194 recipients in practice in 86 counties with 28 serving in designated critical counties. Further, its success story has received national attention on numerous occasions.

Now comes the chant from some individuals, both KMA members and Scholarship Fund recipients, that the Scholarship program is outdated and changes should be made. A student today has many more sources for financial assistance than did those who first applied for RKMSF funds. In the early days, the Fund received many testimonials of gratitude.

The Scholarship Fund was established as a means of providing a better distribution of physicians in rural areas of Kentucky. The greatest success has been in the area of family practice. In the past few years, the emphasis on specialty training has created many problems.

The Fund was never intended as a lending institution. Equal emphasis has always been placed on the practice and the financial obligations.

The Scholarship Fund's goal is to help educate our young people and then, as a result, to have satisfied doctors of medicine in rural communities. If frustrations are beginning to show, then an examination of the Fund is in order, and corrective action should be taken if the need is indicated.

Communicating all the facts is really a task no one should take on because it is an impossible chore. On the other hand, putting out the fires is essential.

For example, how do you respond to Scholarship recipients who receive their degree, start their practice and demonstrate a previously unidentified independence by refusing to join KMA? What about the established physician who states he isn't going to pay KMA dues anymore because a Scholarship recipient is denied the privilege of joining him in practice in a restricted geographic area as spelled out in the contract?

This might be compared to someone who states he isn't going to church anymore because his favorite ball team is on a losing streak. The point is there is no correlation of the above, nor is there when comparing KMA membership and Rural Kentucky Medical Scholarship Fund policies.

The Scholarship Fund is a completely separate organization, has its own governing body, and makes its own rules. KMA cannot change them nor assume control of the Scholarship Board, which is composed of people from all walks of life. None of your KMA dues money goes to the Fund. On the contrary, out of interest monies received, the Fund pays KMA and the fiscal agent for the housekeeping services performed.

The Scholarship Fund is currently reviewing and updating its programs and continues to welcome constructive suggestions. Whatever is accomplished, the best result can be obtained if we all work together as part of a unit and not just criticize and turn our backs. Unanimous we will never be. Unified we must be.

RGC



ORGANIZATION SECTION



Health Care Important Issue In 93rd U.S. Congress

With the recent passage of the Health Maintenance Organization Act of 1973 and talk of adoption of some type of national health insurance, health care ranks as one of the most important domestic issues in the 93rd Congress.

The HMO bill, PL 93-222, which was adopted in the first session, will establish a five-year, \$375 million program of federal subsidies to prepaid group practices. The law sets forth services which HMO's would be required to provide their enrollment groups, but it allows the HMO to charge copayments in amounts approved by the Secretary which may be required for the provision of specific basic health services in order to control total program costs and utilization of services. All employers having 25 or more employees, and providing health insurance as an employee benefit, will be required to make HMO enrollment available where such group practices are available. The law further calls for preemption of certain state laws dealing with the corporate structure of prepaid group practices.

A strong effort is predicted for some form of national health insurance to pass during the second session of the 93rd Congress. President Nixon has indicated on several occasions that his major domestic initiative for 1974 will be a comprehensive national health insurance program.

Digest of Board of Trustees Minutes December 13, 1973

The second regular session of the KMA Board of Trustees was held on December 13, 1973, at the Headquarters Office. Reports of the President, Headquarters Office, and Delegates to AMA were reviewed and accepted for information. Laman Gray, M.D., a member of the Comprehensive Health Planning Council, reported on recent activities of the Council.

The Board acted on numerous committee recommendations, such as:

- ✓ Discontinuing the voluntary Orientation Program.
- ✓ Authorizing appointment of a Cancer Committee to conduct a program that would encourage women to have an annual pap smear.

- ✓ Announcing that administrative duties of the Kentucky Psychiatric Association would be assumed by the KMA staff effective January 1.

- ✓ Urging the Business Management and Services Committee to finalize plans with the Quick Action Committee for a spring tour for KMA members.

- ✓ Approving numerous programs of the Public Relations Committee, including a venereal disease control program in state high schools and colleges with the support of the Kentucky Jaycees; a brochure for all KMA members regarding Association services and activities; a Workshop for New Physicians to be held April 22 and 23, 1974, at the Headquarters Office and co-sponsored by AMA-ERF.

- ✓ Urging the Governor and Legislature to provide adequate funding for the Kentucky Medical Examiners System.

- ✓ Appropriating \$500 to help defray the cost of the 1974 Seminar on Medical Aspects of Sports.

- ✓ Approving further pursuit by the Hospital Committee of the physician awareness of hospital costs program and an educational program on proper emergency room usage.

- ✓ Recognizing the Kentucky Chapter, American College of Emergency Physicians as a specialty group on a provisional basis.

It was noted that the final resolution on PSRO approved by the AMA at its Clinical Convention in December used verbatim some of the wording of KMA's PSRO resolution which was passed by the 1973 House of Delegates in September and then submitted to the AMA House.

In other action, the Board heard from David A. Hull, M.D., President of the Kentucky Foundation for Medical Care, regarding approval of a single statewide PSRO in Kentucky. He also announced that a two-day seminar on PSRO will be held during March, 1974, in Louisville and Lexington and there were plans to hold mini-workshops in each trustee district at a later date.

Kentucky Named as PSRO Area

The December 20, 1973, issue of the *Federal Register* announced PSRO area designations. Kentucky, along with 30 other states and U.S. Territories, was named as a single statewide PSRO area. A total of 182 areas were announced under the Department of Health, Education and Welfare proposal.

CORRECTION

In the Abortion Guidelines printed in the January issue of *The Journal* on page 35, standard #8 should read: "Abortions should be done by standard and approved methods and recorded in the patient's record. Histologic examination of the tissues is necessary."

Ky. Physicians Are Appointed To AMA Councils, Committees

Five Kentuckians were either appointed or re-appointed to membership on councils and committees of the Board of Trustees of the American Medical Association at a recent annual review made by the AMA Board.

Hoyt D. Gardner, M.D., Louisville, KMA President-Elect, was reappointed to the Council on Legislation. Reappointed to the Committee on Insurance was Henry B. Asman, M.D., Louisville, Associate Editor of *The Journal*, and to the Committee on Quackery, was David B. Stevens, M.D., Lexington, KMA Delegate to the AMA.

Two faculty members of the University of Kentucky were newly appointed to serve on two committees formed this year by the Board. Robert Straus, Ph.D., Lexington, will serve on the AMA Committee on Alcoholism, and Donald Jasinski was appointed to the Committee on Drug Dependence.

KMA Executive Director Named To PCMA Board of Directors

Robert G. Cox, Executive Director of KMA, was recently elected to the Board of Directors of PCMA, a national organization of professional convention managers. Made up primarily of medical convention managers, Mr. Cox will be serving as one of two state medical association members on the Board. The election took place at the annual convention of PCMA held jointly with the Health Care Exhibitors Association in Dallas, January 6-10.

What's Happening in Kentucky—

A task force of the State Comprehensive Health Planning Council, recently appointed by Chairman Wade Mountz of Louisville, has begun work on ways to make home health care available to every Kentuckian. The task force will determine measures to encourage the formation of new home health agencies throughout the state. Presently, 36 agencies are in operation to provide services such as occupational, physical, and speech therapy and nursing assistance to patients in the home.

★★★★★★★

Many Kentuckians are being certified as emergency medical technicians (EMT's) by the Kentucky Department for Human Resources' Bureau for Health Services after completing a 12½-week course given around the state. The EMT course is part of a federally-funded project co-sponsored by the Departments for Human Resources and Law and Justice. It covers all aspects of emergency medical care and transportation of the sick and injured. In the last two years, more than 1,000 ambulance drivers and attendants, firemen, policemen, nurses, rescue squad members, and others responsible for emergency care of the public were certified.

Fifth Family Medicine Review To Be Presented By U.K.

The University of Kentucky College of Medicine will present two identical comprehensive reviews designed in part to prepare family physicians for the annual American Board of Family Medicine examination scheduled for late October. Approximately 70-74 topics will be presented by the University of Kentucky and guest faculty.

Dates for the two reviews are September 15-21, 1974, and October 6-12, 1974; both programs will be held at the University of Kentucky Medical Center. Program chairman is Frank R. Lemon, M.D. and a \$195 registration fee has been set. Fifty hours of AAFP credit have been requested. For further information, contact Ronald D. Hamilton, M.D., Director, Continuing Education, College of Medicine, University of Kentucky, Lexington 40506.

Dermatologists Add New Service

Ullin W. Leavell, Jr., M.D., Lexington, heads the Task Force of the American Academy of Dermatology in charge of a new telephone consultation service. Dermatologists seeking help with problem cases will have access to expertise of colleagues via telephone beginning in June, 1974. A roster of experts available for consultation will be distributed before the June starting date.

In Memoriam

JOHN J. SHERMAN, M.D.
Martin
1914-1973

John J. Sherman, M.D., died on December 6 at the age of 59. Doctor Sherman, a 1941 graduate of Rush Medical College, had belonged to the Kentucky and American medical associations, as well as the Southern Medical Association and the American Society of Abdominal Surgeons. He was a Fellow of the American College of Surgeons and a Diplomate of the American Board of Surgery.

FRANK A. BECHTEL, M.D.
Louisville
1920-1974

Frank Alan Bechtel, M.D., a 53-year-old radiologist, died on January 15. A 1950 graduate of the University of Louisville School of Medicine, Doctor Bechtel was past President of the Kentucky Chapter of the American College of Radiology and had served as a former Kentucky Councilor to the College.

Active in many phases of organized medicine, Doctor Bechtel was a former member of the Board of Directors of the Kentucky Foundation for Medical Care and had served on the Jefferson County Medical Society Judicial Council. He was also a member of the American Medical Association.

Sign of a cold sufferer

Time for Ornade®

Each capsule contains 8 mg. Teldrin®
(brand of chlorpheniramine maleate);
50 mg. phenylpropanolamine hydrochloride;
2.5 mg. isopropamide, as the iodide.

Fast relief of
upper respiratory congestion
and hypersecretion
with convenient b.i.d. dosage.

For prescribing, see complete prescribing information in SK&F
Monograph or PDR.

Indications: Upper respiratory congestion and hypersecretion associated
with the common cold; acute and chronic sinusitis; vasomotor rhinitis;
allergic rhinitis (hay fever, "rose fever," etc.).

Contraindications: Hypersensitivity to any component, concurrent
MAO inhibitor therapy, severe hypertension, bronchial asthma, coronary
artery disease, stenosing peptic ulcer, pyloroduodenal or bladder neck
obstruction. Children under 6.

Warnings: Caution patients about activities requiring alertness (e.g.,
driving vehicles or machinery). Warn patients of possible additive
effects with alcohol and other CNS depressants.

Use in Pregnancy: In pregnancy, nursing mothers and women who
may bear children, weigh potential benefits against hazards. Inhibition
of lactation may occur.

Interference with PBI Determination and I¹³¹ Uptake: Isopropamide iodide may
interfere with PBI test results and will suppress I¹³¹ uptake. Substitute thyroid tests
not affected by exogenous iodides.

Precautions: Use cautiously in persons with cardiovascular disease,
hypertension, prostatic hypertrophy, hyperthyroidism.

Adverse Reactions: Drowsiness, excessive dryness of nose, throat or
mouth; nervousness, or insomnia. Also, nausea, vomiting, epigastric
discomfort, diarrhea, rash, dizziness, weakness, chest tightness, angina pain,
headache, irritability, palpitation, headache, incoordination, tremor,
difficulty in urination, thrombocytopenia, leukopenia, convul-
sions, hypertension, hypotension, anorexia, constipation, visual distur-
bances, iodine toxicity (acne, parotitis).

Supply: Bottles of 50 capsules.

SK&F

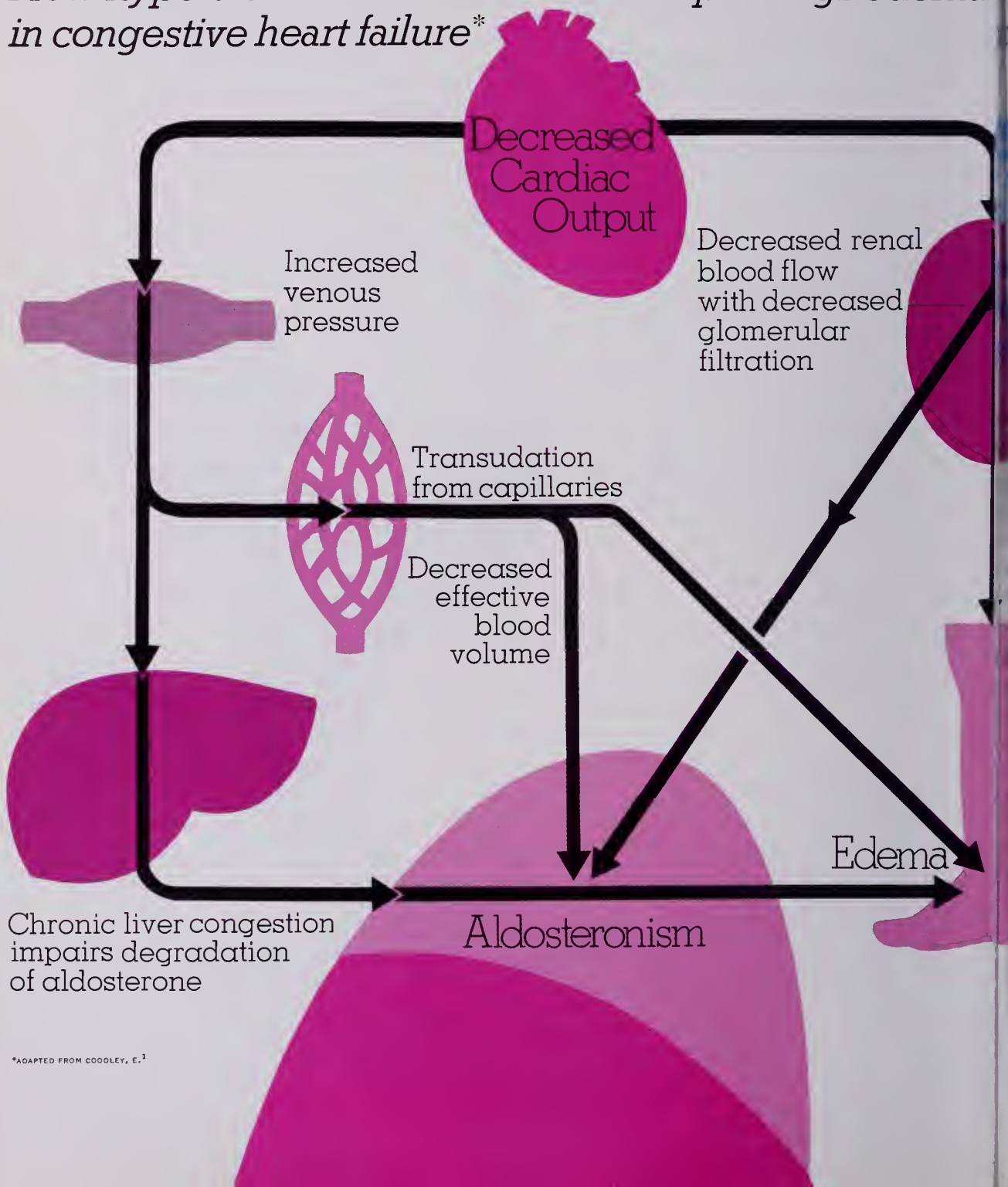
Smith Kline & French Laboratories

A Division of SmithKline Corp., Philadelphia, Pa. 19101



In congestive heart failure... **secondary aldosteronism**

*How hyperaldosteronism leads to and prolongs edema in congestive heart failure**



a primary factor

*"switch off" the aldosterone factor in
congestive heart failure*

Aldactone[®]
spironolactone 25-mg. tablets

*the only specific
aldosterone antagonist...
basic in all diuretic therapy*

See ways to use Aldactone in
congestive heart failure

is the only diuretic
often sufficient alone.
produces gradual, sustained diuresis by
blocking aldosterone action in the distal
renal tubule.
avoids potassium loss.

is the basic daily diuretic with an "add-on"
alternate-day-diuretic ("A.D.D." schedule)
can be administered daily as basic
therapy with the additional agent
(furosemide or ethacrynic acid) given
every second or third day.
Aldactone plus "A.D.D." schedule
minimizes potassium deficiency and
potentiates effect of "add-on" diuretic.²
avoids acute volume depletion and
aldosterone rebound.²

is a daily diuretic in combination with
daily dose of a thiazide
permits daily additive diuretic effect
while maintaining potassium balance.

Indications—Essential hypertension; edema or ascites of congestive heart failure, cirrhosis of the liver and the nephrotic syndrome; idiopathic edema. Same patients with malignant effusions may benefit from Aldactone (spironolactone), particularly when given with a thiazide diuretic.

Contraindications—Acute renal insufficiency, rapidly progressing impairment of renal function, anuria and hyperkalemia.

Warnings—Potassium supplementation may cause hyperkalemia and is not indicated unless a glucocorticoid is also given. Discontinue potassium supplementation if hyperkalemia develops. **Usage of any drug in women of childbearing age requires that the potential benefits of the drug be weighed against its possible hazards to the mother and fetus.**

Precautions—Patients should be checked carefully since electrolyte imbalance may occur. Although usually insignificant, hyperkalemia may be serious when renal impairment exists; deaths have occurred. Hyponatremia, manifested by dryness of the mouth, thirst, lethargy and drowsiness, together with a low serum sodium may be caused or aggravated, especially when Aldactone is combined with other diuretics. Elevation of BUN may occur, especially when pretreatment hyperazotemia exists. Mild acidosis may occur. Reduce the dosage of other antihypertensive drugs, particularly the ganglionic blocking agents, by at least 50 percent when adding Aldactone since it may potentiate their action.

Adverse Reactions—Drowsiness, lethargy, headache, diarrhea and other gastrointestinal symptoms, maculopapular or erythematous cutaneous eruptions, urticaria, mental confusion, drug fever, ataxia, gynecomastia, inability to achieve or maintain erection, mild androgenic effects, including hirsutism, irregular menses and deepening voice. Adverse reactions are infrequent and usually reversible.

Dosage and Administration—For essential hypertension in adults the daily dosage is 50 to 100 mg. in divided doses. Aldactone may be combined with a thiazide diuretic if necessary. Continue treatment for two weeks or longer since an adequate response may not occur sooner. Adjust subsequent dosage according to response of patient.

For edema, ascites or effusions in adults initial daily dosage is 100 mg. in divided doses. Continue medication for at least five days to determine diuretic response; add a thiazide or organic mercurial if adequate diuretic response has not occurred. Aldactone dosage should not be changed when other therapy is added. A daily dosage of Aldactone considerably greater than 75 mg. may be given if necessary.

A glucocorticoid, such as 15 to 20 mg. of prednisone daily, may be desirable for patients with extremely resistant edema which does not respond adequately to Aldactone and a conventional diuretic. Observe the usual precautions applicable to glucocorticoid therapy; supplemental potassium will usually be necessary. Such patients frequently have an associated hyponatremia—restriction of fluid intake to 1 liter per day or administration of mannitol or urea may be necessary (these measures are contraindicated in patients with uremia or severely impaired renal function). Mannitol is contraindicated in patients with congestive heart failure, and urea is contraindicated with a history or signs of hepatic coma unless the patient is receiving antibiotics orally to "sterilize" the gastrointestinal tract.

Glucocorticoids should probably be given first to patients with nephrosis since Aldactone, although useful for diuresis, will not directly affect the basic pathologic process.

For children the daily dosage should provide 1.5 mg. of Aldactone per pound of body weight.

References: 1. Coadley, E.: Consultant 12:106-107, 109, 111, 113, 115 (July) 1972. 2. Thorn, G. W., and Lauler, D. P.: Am. J. Med. 53:673-684 (Nov.) 1972

SEARLE

Searle & Co.

San Juan, Puerto Rico 00936

Address medical inquiries to:

G. D. Searle & Co.

Medical Department

Box 5110, Chicago, Illinois 60680



Placidyl® (ETHCHLORVYNOL)

Brief Summary

Indications—Placidyl (ethchlorvynol) is indicated as short-term hypnotic therapy in the management of insomnia.

Contraindications—Drug hypersensitivity and porphyria.

Warnings—Not recommended during the first and second trimester of pregnancy. Caution patients of possible combined exaggerated effects with alcohol, barbiturates, tranquilizers or other CNS depressants. Exaggerated effects might result in blurring of vision, paralysis of accommodation and profound hypnosis. Caution patients concerning driving a motor vehicle, operating machinery, or other hazardous operations requiring alertness after taking the drug. ADMINISTER WITH CAUTION TO PATIENTS WITH SUICIDAL TENDENCIES AND DO NOT PRESCRIBE LARGE QUANTITIES OF THE DRUG. Adjustment of the dosage of oral anticoagulants might be necessary when beginning ethchlorvynol therapy, during therapy, or after stopping therapy. This drug is not recommended for use in children. PLACIDYL HAS THE POTENTIAL FOR THE DEVELOPMENT OF PSYCHOLOGICAL AND PHYSICAL DEPENDENCE. INSTANCES OF SEVERE WITHDRAWAL SYMPTOMS, INCLUDING CONVULSIONS AND DELIRIUM CLINICALLY SIMILAR TO THOSE SEEN WITH BARBITURATES, HAVE BEEN REPORTED IN PATIENTS TAKING REGULAR DOSES AS LOW AS 1000 MG. PER DAY OVER A PERIOD OF TIME WHEN THE DRUG WAS SUDDENLY DISCONTINUED. PROLONGED ADMINISTRATION OF THE DRUG IS NOT RECOMMENDED. Addiction-prone patients or those who are likely to increase dosages of the drug on their own initiative should be observed for evidence of signs or symptoms which may indicate possible early withdrawal or abstinence symptoms. Signs and symptoms associated with withdrawal and abstinence include unusual anxiety, tremor, ataxia, slurring of speech, memory loss, perceptual distortions, irritability, agitation and delirium. Other less well defined signs and symptoms, not necessarily due to withdrawal and abstinence, may include anorexia, nausea or vomiting, weakness, dizziness, sweating, muscle twitching and weight loss. Abrupt discontinuance of Placidyl following prolonged overdosage may result in convulsions and delirium.

Precautions—Toxic amblyopia has been reported with long-term continuous use of ethchlorvynol. Permanent visual defects have been observed, although amblyopia has improved after discontinuation of the drug. Drug dosage should be limited for elderly and debilitated patients to the smallest effective amount. If pain is present, this drug should only be given if insomnia persists after pain is controlled with analgesics. Caution is advised in prescribing the drug for patients who are being treated with either MAO inhibitors or antidepressants. Transient delirium has been reported with the combination of Placidyl and amitriptyline. Drug dosage should be reduced if prescribed for patients receiving MAO inhibitors or antidepressants. Caution should be exercised in patients with impaired hepatic or renal function. Patients who respond unpredictably to barbiturates or alcohol, or who exhibit excitement and release of inhibition in association with such agents, may also react in this way to Placidyl. Rarely, patients may exhibit symptoms suggestive of an unusual susceptibility to the drug; such as prolonged hypnosis, profound muscular weakness, excitement, hysteria, or syncope without marked hypotension. Transient giddiness or ataxia may occur.

Adverse Reactions—Hypotension, nausea or vomiting, gastric upset, aftertaste, blurring of vision, dizziness, facial numbness, and allergic reaction typified by urticaria have been reported following Placidyl administration. Mild "hangover" and symptoms of mild excitation have occurred in some patients. There have been rare reports of cholestatic jaundice occurring in patients taking ethchlorvynol. A few cases of thrombocytopenia have been reported in patients receiving ethchlorvynol. 305432



Give us her nights.

Prescribe Placidyl. Chances are, we'll give her a good night's sleep.

Insomnia is often suffered by the elderly. Anxiety and agitation might be the cause. Or the effect. In time that can be determined. But tonight one fact is painfully clear: she needs sleep.

When sleep is synonymous with therapy, remember . . . Placidyl is synonymous with sleep. It has been for over 17 years.

If time is the criterion to inspire your confidence . . . you can rest assured with Placidyl.

Prescribed by physicians for over 17 years.

Placidyl®

IV

(ETHCHLORVYNOL CAPSULES, 500 or 750 mg.)

Physician-Population Ratio of Kentucky Counties Noted for 1973

The Rural Kentucky Medical Scholarship Fund, in determining the "critical" and "semi-critical" counties of Kentucky, in terms of physician-population ratio, have used 1970 census figures in drawing the following statistics.

In the United States, the physician-population ratio is one physician to every 599 persons according to

AMA. The Kentucky average is one physician to every 1,002 persons.

It should be noted that the statistics include, not only practicing physicians, but also government facilities, teaching institutions, hospitals, etc. The only physicians excluded in the figures are interns and public health officers.

County	1970 Population	October, 1973* Physician Population	1973 Physician- Population Ratio	Category**
Adair	12,749	7	1,821	C
Allen	12,393	5	2,479	C
Anderson	9,231	4	2,308	C
Ballard	7,969	3	2,656	C
Barren	27,676	24	1,112	B
Bath	9,041	4	2,260	C
Bell	31,604	37	892	B
Boone	32,272	23	1,403	B
Bourbon	18,035	16	1,002	B
Boyd	50,838	61	833	A
Boyle	20,351	33	617	A
Bracken-				
Robertson	9,119	2	4,560	D
Breathitt	13,863	3	4,621	D
Breckinridge	14,369	7	2,053	C
Bullitt	25,002	7	3,571	D
Butler	9,432	1	9,432	E
Caldwell	12,603	5	2,521	C
Calloway	27,206	19	1,432	C
Campbell	88,149	67	1,316	B
Carlisle	5,230	2	2,615	C
Carroll	8,387	5	1,677	C
Carter	19,496	4	4,874	D
Casey	12,608	5	2,522	C
Christian	55,539	48	1,157	B
Clark	24,473	15	1,631	C
Clay	17,601	7	2,514	C
Clinton	7,704	2	3,852	D
Crittenden	8,253	2	4,126	D
Cumberland	6,681	1	6,681	E
Daviess	78,327	77	1,017	B
Edmonson	8,482	2	4,241	D
Elliott	5,721	1	5,721	E
Estill	12,526	3	4,175	D
Fayette	172,927	670	258	A
Fleming	10,398	3	3,466	D
Floyd	34,751	19	1,830	C
Franklin	32,749	41	798	A
Fulton	10,132	9	1,126	B
Gallatin	3,992	1	3,992	D
Garrard	9,311	3	3,103	C
Grant	9,485	4	2,741	C
Graves	30,745	20	1,537	C
Grayson	15,880	6	2,646	C
Green	9,970	8	1,246	B
Greenup	33,200	9	3,688	D
Hancock	6,832	1	6,832	E
Hardin	76,614	37	2,071	C
Harlan	35,596	48	741	A
Harrison	13,959	9	1,552	C
Hart	13,448	5	2,689	C
Henderson	35,329	31	1,081	B
Henry	10,593	4	2,747	C
Hickman	5,874	2	2,937	C
Hopkins	37,090	59	629	A
Jackson	9,796	2	4,898	D
Jefferson	689,975	186	590	A
Jessamine	16,760	8	2,095	C
Johnson	16,845	13	1,295	B
Kenton	128,655	143	900	B
Knott	15,306	5	3,061	C
Knox	23,547	12	1,962	C

County	1970 Population	October, 1973* Physician Population	1973 Physician- Population Ratio	Category**
Larue	10,566	4	2,642	C
Laurel	26,913	12	2,243	C
Lawrence	10,407	10	1,041	B
Lee	6,400	1	6,400	E
Leslie	11,383	6	1,897	C
Letcher	22,590	21	1,076	B
Lewis	12,176	3	4,058	D
Lincoln	16,053	3	5,351	E
Livingston	7,391	5	1,478	C
Logan	21,501	10	2,150	C
Lyon	5,126	1	5,126	E
McCracken	58,571	71	825	A
McCreary	12,201	2	6,101	E
McLean	8,789	3	2,929	C
Madison	43,629	33	1,322	B
Magoffin	9,782	3	3,261	C
Marion	16,064	9	1,785	C
Marshall	19,639	10	1,964	C
Martin	9,150	3	3,050	C
Mason	17,157	12	1,430	B
Meade	17,948	2	8,974	E
Menifee	3,936	0	3,936	D
Mercer	15,716	10	1,572	C
Metcalfe	7,797	2	3,899	D
Monroe	11,353	7	1,622	C
Montgomery	15,226	10	1,523	C
Morgan	9,736	3	3,245	C
Muhlenberg	27,074	13	1,934	C
Nelson	23,167	9	2,574	C
Nicholas	6,379	4	1,595	C
Ohio	18,213	8	2,277	C
Oldham	14,104	9	1,567	C
Owen	7,248	2	3,624	D
Owsley	4,839	2	2,420	C
Pendleton	9,722	6	1,620	C
Perry	24,373	26	937	B
Pike	58,876	61	965	B
Powell	7,630	2	3,815	D
Pulaski	34,541	32	1,080	B
Robertson (See Bracken)				
Rockcastle	12,054	3	4,018	D
Rowan	16,364	19	861	A
Russell	10,279	3	3,426	D
Scott	18,073	8	2,260	C
Shelby	18,869	9	2,096	C
Simpson	12,542	7	1,792	C
Spencer	5,414	3	1,805	C
Taylor	16,898	7	2,414	C
Todd	10,761	3	3,587	D
Trigg	8,397	5	1,678	C
Trimble	5,114	2	2,557	C
Union	15,587	7	2,291	C
Warren	53,916	68	793	A
Washington	10,533	5	2,106	C
Wayne	13,911	5	2,782	C
Webster	12,765	5	2,553	C
Whitley	23,501	23	1,022	B
Wolfe	5,347	1	5,347	E
Woodford	14,121	8	1,765	C

*Physician figures obtained from October 1973 report submitted by Kentucky State Medical Licensure Program.

**Category Explanation:

A—10 counties with highest physician-population ratio (A—258-861)

B—11th through 30th counties with next to highest physician-pop. ratio (B—892-1,430)

C—60 counties in middle classification category (C—1,432-3,245)

D—11th through 30th counties next to lowest in physician-pop. ratio (D—3,426-4,898)

E—10 counties with lowest physician-population ratio (E—5,126-9,432)

What's in the future for mental health care and how will it affect you?

Your guides into the future: many prominent experts including Drs. Ewald Busse and J.M. Stubblebine. Topics you'll cover: the role of private and public sectors in mental health care; PSROs; health insurance coverage; therapeutic trends; and service capabilities of state and local facilities.

Do plan to attend this enlightening first conference sponsored by the American Medical Association Council on Mental Health and the State Association committees responsible for mental health in the states of Florida, Georgia, Kentucky, North Carolina, South Carolina, and Tennessee. Co-sponsors are the Southern Regional Education Board, District Branches of the American Psychiatric Association and the State Chapters of the American Academy of Physicians in the above six states.

Acceptable for 8 credit hours in Category 1 for the Physician's Recognition Award of the AMA and approved for 8 prescribed hours by the AAFP.

Register Now!

AMA-Southeast Regional Mental Health Conference
Marriott Hotel / Atlanta, Georgia
April 5-6, 1974

Return to: Dept. of Mental Health; AMA; 535 N.
Dearborn St.; Chicago, Ill. 60610

- ☐ **Yes...**please send me details on the AMA-South-eastern Regional Mental Health Conference in Atlanta, April 5-6.
- ☐ Registration fee of \$25 enclosed. (Make check payable to AMA)
- ☐ I will pay at conference.

Name _____

Address _____

Affiliation _____

City/State/Zip _____

What's on your patient's face

may be more important than his chief complaint

Patient P.T.* seen on 3/29/67 shows typical lesions of moderately severe keratoses. Note residual scarring on ridge of nose from previous cryosurgical and electrosurgical procedures.



Patient P.T.* seen on 6/12/67, seven weeks after discontinuation of 5% FU cream. Reaction has subsided. Residual scarring not seen except that due to prior surgery. Inflammation has cleared and face is clear of keratotic lesions.

*Data on file,
Hoffmann-La Roche
Inc., Nutley, N.J



the lesions on his face e solar/actinic— called "senile" keratoses... d they may be premalignant.

ar, actinic or senile keratoses

esions may be called by several names, but they can be identified by the following characteristics: The typical lesion is flat or slightly elevated, of a pinkish or reddish color, papular, dry, rough, adherent and sharply defined. They commonly occur as multiple lesions, chiefly on the exposed portions of the skin.

ence of therapy— ctivity of response

Several days of therapy with Efudex® (fluorouracil), a reaction may begin to appear in the area of the lesions; the reaction usually reaches its height of unsightliness and discomfort within two weeks, declining after discontinuation of therapy. This reaction occurs in affected areas. Since the response is so predictable, lesions that do not respond should be biopsied.

ceptable results

Treatment with Efudex provides highly favorable cosmetic results. Incidence of scarring is low. This is particularly important with multiple facial lesions. Efudex should be applied with care near the eyes, nose and mouth.

Before prescribing, please consult complete product information, a summary of which follows:

Indications: Multiple actinic or solar keratoses.

Contraindications: Patients with known hypersensitivity to any of its components.

Warnings: If occlusive dressing used, may increase inflammatory reactions in adjacent normal skin. Avoid prolonged exposure to ultraviolet rays. Safe use in pregnancy not established.

Precautions: If applied with fingers, wash hands immediately. Apply with care near eyes, nose and mouth. Lesion failing to respond or recurring should be biopsied.

Adverse Reactions: Local—pain, pruritus, hyperpigmentation and burning at application site most frequent; also dermatitis, scarring, soreness and tenderness. Also reported—insomnia, stomatitis, suppuration, scaling, swelling, irritability, medicinal taste, photosensitivity, lacrimation, leukocytosis, thrombocytopenia, toxic granulation and eosinophilia.

Dosage and Administration: Apply sufficient quantity to cover lesion twice daily with nonmetal applicator or suitable glove. Usual duration of therapy is 2 to 4 weeks.

How Supplied: Solution, 10-ml drop dispensers—containing 2% or 5% fluorouracil on a weight/weight basis, compounded with propylene glycol, tris(hydroxymethyl)aminomethane, hydroxypropyl cellulose, parabens (methyl and propyl) and disodium edetate.

Cream, 25-Gm tubes—containing 5% fluorouracil in a vanishing cream base consisting of white petrolatum, stearyl alcohol, propylene glycol, polysorbate 60 and parabens (methyl and propyl).



Roche Laboratories
Division of Hoffmann-La Roche Inc.
Nutley, N.J. 07110

his patient's lesions were resolved with

Efudex® fluorouracil/Roche®

5% cream/solution...a Roche exclusive



EYES RIGHT!

...to SOUTHERN OPTICAL

LOUISVILLE Southern Optical Bldg. — 640 S. 4th
 Contact Lenses — 640 S. 4th
 Medical Towers Bldg., Floyd & Gray
 Doctors Office Bldg., Liberty at Floyd
 Medical Arts Bldg., 1169 Eastern Parkway
 Professional Bldg. East, 3101 Breckinridge Lane
 Medix Bldg. — Adj. S.S. Mary & Elizabeth Hosp.
ST. MATTHEWS 313 Wallace Center and 108 McArthur Drive
NEW ALBANY Professional Arts Bldg., 1919 State Street
BOWLING GREEN 524 East Main Street
OWENSBORO Doctors Bldg., 1001 Center Street



*Southern
Optical*

CHARGE ACCOUNTS
 INVITED
 BankAmericard
 Master Charge

75
YEARS

Professional

Protection

CONTINUOUSLY

Since 1899

**THE
MEDICAL PROTECTIVE COMPANY**

FORT WAYNE, INDIANA

LOUISVILLE OFFICE: Riley Lassiter, Representative
 Suite 260
 Shelbyville Road Mall Office Center
 400 Sherburn Lane
 Telephone: (Area Code 502) 895-5501
 Mailing Address: P.O. Box 20065, Louisville, Kentucky 40220

The Rx that says "Relax"

BUTISOL Sodium provides highly predictable sedative effect: minor dosage adjustments are usually all that's needed to produce the desired degree of sedation. (With 3 dosage forms and 4 strengths to make adjustments easy.)

BUTISOL Sodium offers prompt, smooth, relatively non-cumulative action: begins to work within 30 minutes...yet, because of its intermediate rate of metabolism, generally has neither a "roller-coaster" nor a "hangover" effect.

BUTISOL Sodium is remarkably well tolerated:

a 30-year safety record assures you that there is little likelihood of unexpected reactions.

BUTISOL Sodium saves your patients money:

costs less than half as much as most commonly prescribed sedative tranquilizers.*

These are four good reasons for prescribing BUTISOL Sodium for the many patients who need to have the pace set just a little slower. Its gentle daytime sedative action is often all that's needed to help the usually well-adjusted patient cope with temporary stress.

*Based on surveys of average daily prescription costs.

Butisol  **SODIUM**[®]
(SODIUM BUTABARBITAL)

Contraindications: Sensitivity or idiosyncrasy to barbiturates; history of manifest or latent porphyria or marked liver impairment; respiratory disease with dyspnea or obstruction; history of addiction to sedative/hypnotic drugs; uncontrolled pain, to avoid because of possible excitement.

Precautions: Exercise caution in: moderate to severe hepatic disease; anticoagulant therapy, because of possible increased metabolism of coumarin anticoagulants; withdrawal in drug dependence or the taking of excessive doses over a long period, to avoid withdrawal symptoms; elderly or debilitated patients, to avoid possible marked excitement or depression; use with alcohol or other CNS depressants, because of combined effects.

Adverse Reactions: Slight hangover, drowsiness, lethargy, headache, skin eruptions, nausea and vomiting, hypersensitivity reactions (especially in those with asthma, urticaria, angioneurotic edema, or similar conditions).

Usual Adult Dosage: For daytime sedation, 15 mg. to 30 mg. t.i.d. or q.i.d. For hypnosis, 50 mg. to 100 mg.

Available as: Tablets, 15 mg., 30 mg., 50 mg., 100 mg.; Elixir, 30 mg. per 5 cc. (alcohol 7%). BUTICAPS[®] [Capsules BUTISOL SODIUM (sodium butabarbital)] 15 mg., 30 mg., 50 mg., 100 mg.

McNEIL

McNeil Laboratories, Inc., Fort Washington, Pa. 19034

© McN 1971



Man in space, now fait accompli, re-emphasizes the importance of Uro-Phosphate therapy. Research into the effect of space travel on the astronaut reveals that weightlessness causes loss of bone calcium. As the bones are required to bear less and less of the weight of the body they lose calcium, increasing the calcium content of the urine. When physical activity is reduced, the acidity of the urine should be adjusted to keep increased calcium in solution . . . a prophylaxis to prevent kidney or bladder calculi.

Uro-Phosphate®

NOW A SUGAR-COATED TABLET

Each tablet contains: METHENAMINE, 300 mg.; SODIUM ACID PHOSPHATE, 500 mg.

Uro-Phosphate gives comfort and protection when inactivity causes discomfort in the urinary function. It keeps calcium in solution, preventing calculi; it maintains clear, acid, sterile urine; it encourages

complete voiding and lessens frequency when residual urine is present.

Uro-Phosphate contains sodium acid phosphate, a natural urinary acidifier. This component is fortified with methenamine which is inert until it reaches the acid urinary bladder. In this environment it releases a mild antiseptic keeping the urine sterile.

Uro-Phosphate is safe for continuous use. There are no contra-indications other than acidosis. It can be given in sufficient amount to keep the urine clear, acid and sterile. A heavy sugar coating protects its potency.

Dosage:

For protection of the inactive patient 1 or 2 tablets every 4 to 6 hours is usually sufficient to keep the urine clear, acid and sterile.

2 tablets on retiring will keep residual urine acid and sterile, contributing to comfort and rest.

A clinical supply will be sent to physicians and hospitals on request.



WILLIAM P. POYTHRESS & COMPANY, INC., RICHMOND, VIRGINIA 23217

Manufacturers of Ethical Pharmaceuticals



Banana-Flavored Donnagel® PG

the civilized solution to the age-old problem of diarrhea.

the evolution of Donnagel® PG:

kaolin and pectin to provide demulcent-detoxinant effects.

Donnagel alkaloids for antispasmodic benefits.

powdered opium, the therapeutic equivalent of paregoric—without unpleasant taste—to promote the production of formed stools and relieve the urge.

and a delicious banana flavor good enough for the most discriminating palates.

Put them together in the evolutionary discovery that's the best-tasting way to treat acute, non-specific diarrheas.

Donnagel® PG

Donnagel with paregoric equivalent.

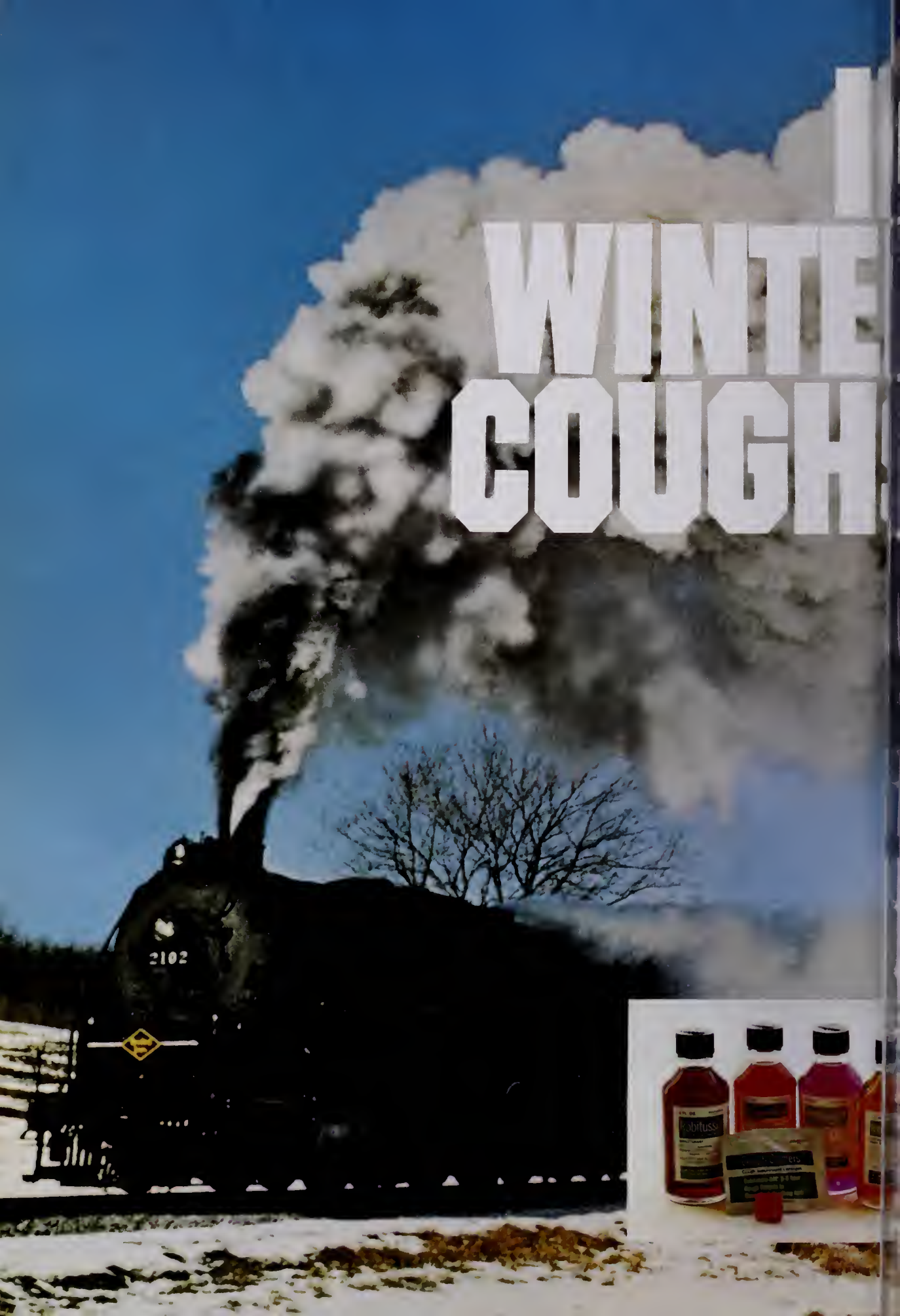
Each 30cc. contains:

Kaolin	6.0 g.
Pectin	142.8 mg.
Hyoscyamine sulfate	0.1037 mg.
Atropine sulfate	0.0194 mg.
Hyoscine hydrobromide	0.0065 mg.
Powdered opium, USP.	24.0 mg.
(equivalent to paregoric 6 ml.)	
(warning: may be habit forming)	
Sodium benzoate	
(preservative).	60.0 mg.
Alcohol, 5%	

☐ Available on oral prescription or without prescription in compliance with applicable state and local law.

A-H-ROBINS

I WINTER COUGH



CLEAR THE TRACT WITH THE ROBITUSSIN[®] LINE

The coughing season is here again. Time to rely on the four Robitussins and Cough Calmers to help clear the lower respiratory tract. All contain glyceryl guaiacolate, the efficient expectorant that works systemically to help increase the output of lower respiratory tract fluid. The enhanced flow of less viscid secretions soothes the tracheobronchial mucosa, promotes ciliary action, and makes thick, inspissated mucus less viscid and easier to raise. Available on your prescription or recommendation.

For coughs of colds and "flu"

ROBITUSSIN[®]

Each 5 cc. contains:

Glyceryl guaiacolate 100 mg.
Alcohol, 3.5%

For unproductive allergic coughs

ROBITUSSIN A-C[®]

Each 5 cc. contains:

Glyceryl guaiacolate 100 mg.
Codeine phosphate 10.0 mg.
(warning: may be habit forming)
Alcohol, 3.5%

Non-narcotic for 6-8 hr. cough control

ROBITUSSIN-DM[®]

Each 5 cc. contains:

Glyceryl guaiacolate 100 mg.
Dextromethorphan hydrobromide 15 mg.
Alcohol, 1.4%

Robitussin-DM in solid form for "coughs on the go"

COUGH CALMERS[®]

Each Cough Calmer contains:

Glyceryl guaiacolate 50 mg.
Dextromethorphan hydrobromide 7.5 mg.

Relieves cough, clears sinuses and nasal passages—
keeps them "drip-dry" but not bone dry

ROBITUSSIN-PE[®]

Each 5 cc. contains:

Glyceryl guaiacolate 100 mg.
Phenylephrine hydrochloride 10 mg.
Alcohol, 1.4%

the Robitussin[®]
-Tract[®] Formulation
Treats Your Patient's
Dual Coughing

	Expectorant- Demulcent	Cough Suppressant	Antihistamine*	Long-Acting (6-8 hours)	Nasal, Sinus Decongestant	Non-Narcotic
USSIN [®]	●					●
USSIN A-C [®]	●	●	●			
USSIN-DM [®]	●	●		●		●
USSIN-PE [®]	●				●	●
H CALMERS [®]	■	■		■		■

handy chart as a guide in selecting the formula that provides the benefits you want for your patient.

A-H-ROBINS

A. H. Robins Company, Richmond, Virginia 23220

It's time for action to defend the law and regulations that protect your patients against drug substitution

**These professional and trade organizations are united
in supporting antisubstitution statutes and regulations**

The American Academy of Dermatology

The Board of Directors of the
American Academy of Family
Physicians

The Executive Board of the
American Academy of Neurology

The Committee on Drugs of the
American Academy of Pediatrics

The American College of Allergists

The Executive Committee of the
American College of Obstetrician
and Gynecologists

The Board of Regents of the
American College of Physicians

The Board of Trustees of the
American Dental Association

The Board of Trustees of the
American Medical Association

The American Psychiatric Association

The Executive Committee of the
National Association of Retail
Druggists

The Board of Directors of the
Pharmaceutical Manufacturers
Association

The National Wholesale Druggists
Association



Statement on Antisubstitution Laws and Regulations

The purpose of this statement is to affirm the support of the participating organizations for the laws, regulations and professional traditions which prohibit the unauthorized substitution of drug products.

Traditionally, physicians, dentists and pharmacists have worked cooperatively to serve the best interests of patients. Productive cooperation has been achieved through mutual respect as well as a common concern for the ideals of public service. This mutual respect has been reflected, in part, by joint support over the years for the adoption and enforcement of laws and regulations which specifically prohibiting unauthorized substitution and encouraging joint discussion and selection of the best source of supply of drug products. The basic principles of medical, dental and pharmacy practice are thus maintained and preserved in the interest of patient welfare.

The antisubstitution laws have obstructed enhancement of the professional status of pharmacy more than they have in and of themselves guaranteed absolute protection from unsafe drugs, or freed physicians, dentists and pharmacists of their responsibilities to patients. In a practical matter, however, such laws and regulations encourage interprofessional communications regarding drug product selection and assure each profession the opportunity to exercise fully its expertise in drug selection, to the advantage of patients.

Physicians and dentists should be urged to increase the frequency and regularity of their contacts with pharmacists in selection of quality drug products, recognizing that

economies to patients can be improved through such communication, taking into account the patients' needs. The pharmacist's knowledge of the chemical characteristics of drugs, their mode of action, toxic properties and other characteristics that assist in making drug selection decisions should be utilized to the fullest extent practicable by physicians and dentists in serving their patients.

Since drug product selection entails knowledge derived from clinical experience, the physician's and dentist's roles in product selection remain primary and do not permit delegation of decisions requiring medical and dental judgments. A broader role in therapy will evolve for pharmacists as improved understanding and cooperation among the professions continue to grow.

There has been no evidence that there are convincing reasons to modify or repeal existing laws and regulations prohibiting the unauthorized substitution of another drug product for the one specified by a prescriber. It is our belief that such laws and regulations merit the joint support of the medical, dental and pharmaceutical professions and the pharmaceutical industry.

Add your opinion to the weight of other professionals and send it to your state assemblyman or legislator.

*Pharmaceutical Manufacturers Association
1155 Fifteenth Street, N.W., Washington, D. C. 20005*



Synthroid[®]

(sodium levothyroxine)

Supplied: **Tablets:** 0.025 mg., 0.05 mg., 0.1 mg., 0.15 mg., 0.2 mg., 0.3 mg., 0.5 mg., scored and color-coded in bottles of 100, 500, and 1000.

Injection: 500 mcg. lyophilized active ingredient and 10 mg. of Mannitol, U.S.P., in 10 ml. single-dose vial, with 5 ml. vial of Sodium Chloride Injection, U.S.P., as a diluent.

Synthroid-T₄



FLINT LABORATORIES
DIVISION OF TRAVENOL LABORATORIES, INC.
Deerfield, Illinois 60015

The Bactrim^{T.M.} edge

Each tablet contains 80 mg trimethoprim and 400 mg sulfamethoxazole.

high assurance of clinical efficacy

- in cystitis, pyelonephritis and pyelitis diagnosed as chronic
- against susceptible strains of the common urinary tract pathogens, usually *E. coli*, *Klebsiella-Enterobacter*, *Proteus mirabilis*, and, less frequently, indole-positive proteus species.



prescribing, please consult complete product information, a summary of which follows:

Indications: Chronic urinary tract infections (primarily pyelonephritis, pyelitis and cystitis) due to susceptible strains (usually *E. coli*, *Klebsiella-Enterobacter*, *Proteus mirabilis*, and, less frequently, indole-positive proteus species).

The increasing frequency of resistant organisms and the usefulness of antibacterials, especially in chronic and recurrent urinary tract infections.

Contraindications: Hypersensitivity to trimethoprim or sulfonamides; pregnancy; nursing mothers.

Warnings: Deaths from hypersensitivity reactions, agranulocytosis, aplastic anemia and other blood dyscrasias have been associated with sulfonamides. Experience with trimethoprim is much more limited but bone marrow interference with hematopoiesis has been reported as well as an increased incidence of thrombocytopenia in elderly patients on diuretics, primarily furosemide. Sore throat, fever, pallor or jaundice may be signs of serious blood disorders. Frequent CBC's are recommended; therapy should be discontinued if a significantly reduced count of any formed blood element is noted. Data are insufficient to recommend use in infants and children under 12.

Precautions: Use cautiously in patients with impaired renal or hepatic function, possible folate deficiency, asthma or bronchial asthma; and in those with glucose-6-phosphate dehydrogenase deficiency, where hemolysis may occur. During therapy, maintain adequate fluid intake and perform frequent urinalyses, with microscopic examination, and renal function particularly where there is impaired renal function.

Adverse Reactions: All major reactions to sulfonamides and trimethoprim are included, even if not reported with Bactrim. *Blood dyscrasias:* Agranulocytosis, aplastic anemia, megaloblastic anemia, thrombocytopenia, leukopenia, hemolytic anemia, purpura, prothrombinemia and methemoglobinemia. *Skin reactions:* Erythema multiforme, Stevens-Johnson syndrome, generalized skin eruptions, epidermal necrolysis, urticaria, serum sickness, pruritus,

exfoliative dermatitis, anaphylactoid reactions, peri-orbital edema, conjunctival and scleral injection, photosensitization, arthralgia and allergic myocarditis. *Gastrointestinal reactions:* Glossitis, stomatitis, nausea, vomiting, abdominal pains, hepatitis, diarrhea and pancreatitis. *CNS reactions:* Headache, peripheral neuritis, mental depression, convulsions, ataxia, hallucinations, tinnitus, vertigo, insomnia, apathy, fatigue, muscle weakness and nervousness. *Miscellaneous reactions:* Drug fever, chills, toxic nephrosis with oliguria and anuria, periarteritis nodosa and L.E. phenomenon. Due to certain chemical similarities to some goitrogens, diuretics (acetazolamide, thiazides) and oral hypoglycemic agents, sulfonamides have caused rare instances of goiter production, diuresis and hypoglycemia in patients; cross-sensitivity with these agents may exist. In rats, long-term therapy with sulfonamides has produced thyroid malignancies.

Dosage: Not recommended for children under 12.

Usual adult dosage: Two tablets b.i.d. for 10 to 14 days. For patients with renal impairment:

Creatinine Clearance (ml/min)	Recommended Dosage Regimen
Above 30	Usual standard regimen
15-30	2 tablets every 24 hours
Below 15	Use not recommended

Supplied: Tablets, each containing 80 mg trimethoprim and 400 mg sulfamethoxazole—bottles of 100 and 500; Tel-E-Dose[®] packages of 1000; Prescription Packs of 40, available singly and in trays of 10.



Roche Laboratories
Division of Hoffmann-La Roche Inc.
Nutley, New Jersey 07110

Bactrim^{T.M.}

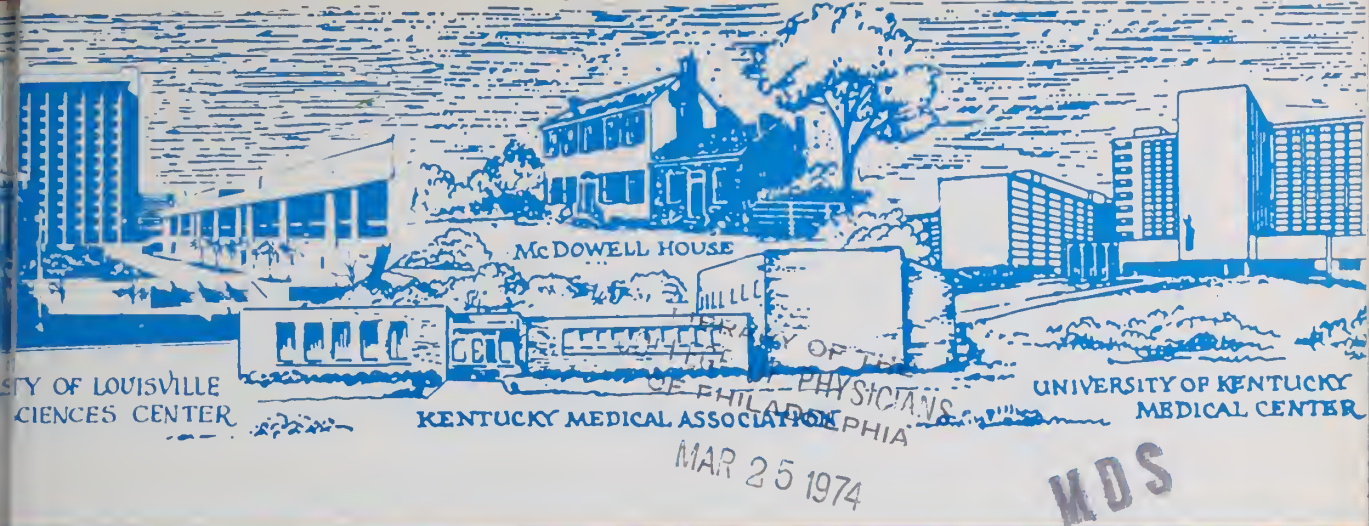
Each tablet contains 80 mg trimethoprim and 400 mg sulfamethoxazole.



Each tablet contains 80 mg trimethoprim and 400 mg sulfamethoxazole.

A high assurance of antibacterial activity
in cystitis, pyelonephritis and pyelitis diagnosed
as chronic and due to susceptible organisms.

Before prescribing, please consult complete product information,
a summary of which appears on preceding page.



The Journal of The KENTUCKY Medical Association

Pararenal Pseudocysts as a Result of Pelvic Surgery

Harold J. Schupbach, M.D. and Irvin Bensman, M.D.

129

Hypertensive Intracranial Hemorrhage

Paul J. Arena, M.D. and J. Thomas Murrow, M.D.

132

Occupational Bladder Cancer

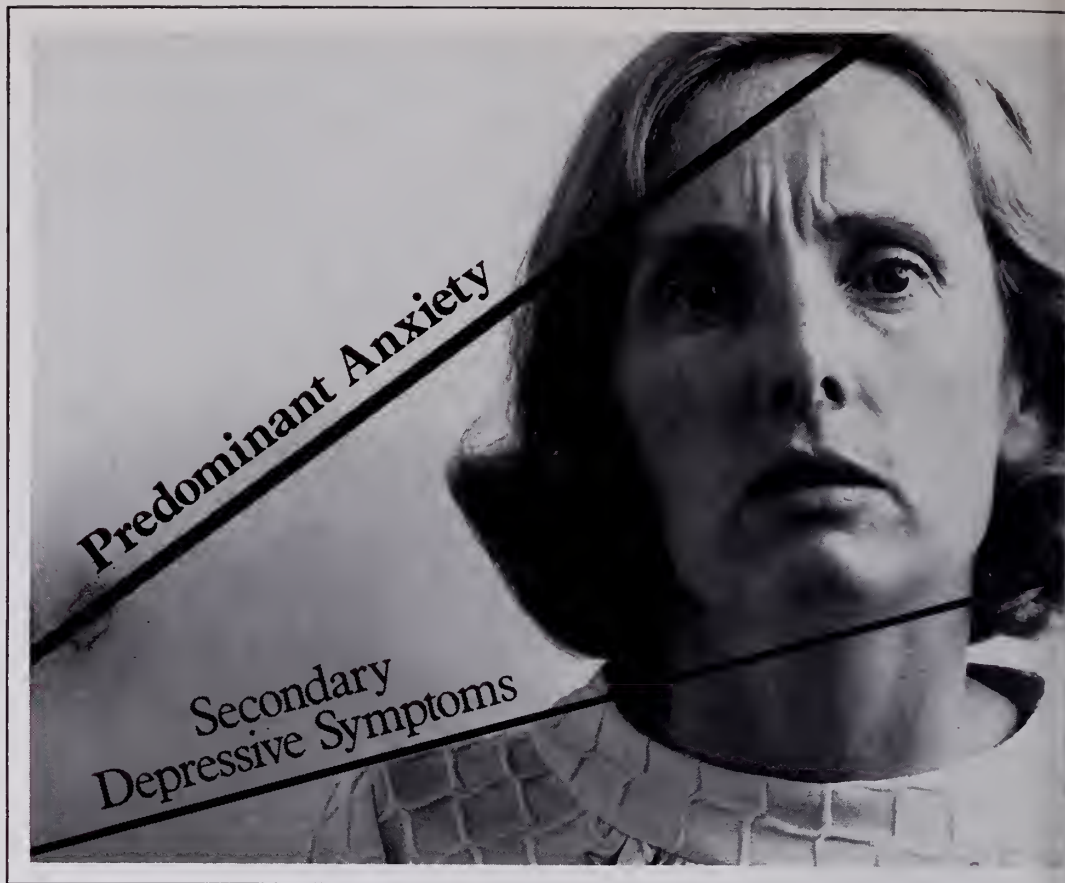
Lloyd B. Tepper, M.D.

135

KMA PSRO Position Paper

148

Complete Contents on Page 117



This psychoneurotic often responds

Before prescribing, please consult complete product information, a summary of which follows:

Indications: Tension and anxiety states; somatic complaints which are concomitants of emotional factors; psychoneurotic states manifested by tension, anxiety, apprehension, fatigue, depressive symptoms or agitation; symptomatic relief of acute agitation, tremor, delirium tremens and hallucinosis due to acute alcohol withdrawal; adjunctively in skeletal muscle spasm due to reflex spasm to local pathology, spasticity caused by upper motor neuron disorders, athetosis, stiff-man syndrome, convulsive dis-

orders (not for sole therapy).

Contraindicated: Known hypersensitivity to the drug. Children under 6 months of age. Acute narrow angle glaucoma; may be used in patients with open angle glaucoma who are receiving appropriate therapy.

Warnings: Not of value in psychotic patients. Caution against hazardous occupations requiring complete mental alertness. When used adjunctively in convulsive disorders, possibility of increase in frequency and/or severity of grand mal seizures may require increased dosage of standard anticonvulsant

medication; abrupt withdrawal be associated with temporary increase in frequency and/or severity of seizures. Advise against simultaneous ingestion of alcohol and other CNS depressants. Withdrawal symptoms (similar to those with barbiturates and alcohol) have occurred following abrupt discontinuance (convulsions, tremor, abdominal and muscle cramps, vomiting and sweating). Keep addiction-prone individuals under careful surveillance because of their predisposition to habituation and dependence. In pregnancy, lactation or women of childbearing age, weigh potential benefit against possible hazard.

When you determine that the depressive symptoms are associated with or secondary to predominant anxiety in the psychoneurotic patient, consider Valium (diazepam) in addition to reassurance and counseling, for the psychotherapeutic support it provides. As anxiety is relieved, the depressive symptoms amenable to it are also often relieved or reduced.

The beneficial effect of Valium is usually pronounced and rapid. Improvement generally becomes evident within a few days, although

some patients may require a longer period. Moreover, Valium (diazepam) is generally well tolerated. Side effects most commonly reported are drowsiness, ataxia and fatigue. Caution your patients against engaging in hazardous occupations or driving.

Frequently, the patient's symptoms are greatly intensified at bedtime. In such situations, Valium offers an additional advantage: adding an *h.s.* dose to the *b.i.d.* or *t.i.d.* schedule can relieve the anxiety and thus may encourage a more restful night's sleep.

symptom complex

Valium[®] (diazepam)

Precautions: If combined with psychotropics or anticonvulsants, consider carefully pharmacologic agents employed; drugs such as phenothiazines, narcotics, barbiturates, MAO inhibitors and antidepressants may potentiate its action. Usual precautions apply in patients severely depressed, or with latent depression, or suicidal tendencies. Observe usual precautions in impaired renal

or hepatic function. Limit dosage to smallest effective amount in elderly and debilitated to preclude ataxia or oversedation.

Side Effects: Drowsiness, confusion, diplopia, hypotension, changes in libido, nausea, fatigue, depression, dysarthria, jaundice, skin rash, ataxia, constipation, headache, incontinence, changes in salivation, slurred speech, tremor, vertigo, urinary retention, blurred

vision. Paradoxical reactions such as acute hyperexcited states, anxiety, hallucinations, increased muscle spasticity, insomnia, rage, sleep disturbances, stimulation have been reported; should these occur, discontinue drug. Isolated reports of neutropenia, jaundice; periodic blood counts and liver function tests advisable during long-term therapy.



Roche Laboratories
Division of Hoffmann-La Roche Inc.
Nutley, N.J. 07110

Valium[®] 2-mg, 5-mg, 10-mg tablets
(diazepam)



POSTGRADUATE SYMPOSIUM ON RHEUMATIC DISEASES



THURSDAY, MAY 9, 1974

9:00 a.m.—5 p.m.

AUDITORIUM, HEALTH
SCIENCES CENTER

UNIVERSITY OF LOUISVILLE
SCHOOL OF MEDICINE

Preston & Walnut Streets

SPONSORED BY THE UNIVERSITY OF LOUISVILLE SCHOOL OF MEDICINE
AND THE KENTUCKY ARTHRITIS FOUNDATION

TOPIC: PATHOGENESIS AND MANAGEMENT OF RHEUMATIC DISEASES

This symposium emphasizes pathogenesis and management of various rheumatic diseases. Topics will include osteoarthritis, extra-articular complications of rheumatoid arthritis, systemic lupus erythematosus, gout and pseudogout, ankylosing spondylitis and seronegative arthritides, such as psoriatic arthropathy and Reiter's syndrome. Panel discussions with audience participation on diagnostic and therapeutic problems will conclude the morning and afternoon sessions.

PROGRAM DIRECTOR: DAVID H. NEUSTADT, M.D.

JOHN J. CALABRO, M.D.

University of Massachusetts

GEORGE E. EHRLICH, M.D.

Temple University

J. WILLIAM HOLLINGSWORTH, M.D.

University of Kentucky

HENRY J. MANKIN, M.D.

Harvard Medical School

DANIEL J. McCARTY, M.D.

Medical College of Wisconsin

LAWRENCE E. SHULMAN, M.D.

Johns Hopkins University

*Pathogenesis and Management of
Ankylosing Spondylitis*

*Pathogenesis and Management of Seronegative
Arthritides (Psoriatic, Reiter's)*

*Pathogenesis and Management of
Complications of Rheumatoid Arthritis*

*Pathogenesis and Management of
Osteoarthritis*

*Pathogenesis and Management of
Gout and Pseudogout*

*Pathogenesis and Management of
Systemic Lupus Erythematosus*

NO REGISTRATION FEE

Special Luncheon Fee \$2.00

Approved for seven accredited hours by American Academy of Family Physicians

FOR FURTHER INFORMATION CONTACT KENTUCKY ARTHRITIS FOUNDATION,
1381 BARDSTOWN RD., LOUISVILLE, KY. 40204 AC (502) 459-6460.

Journal of The KENTUCKY Medical Association

EDITOR

Wolter I. Hume, Jr., M.D.

ASSOCIATE EDITOR

Henry B. Asmon, M.D.

ASSISTANT EDITOR

A. Evon Overstreet, M.D.

EXECUTIVE EDITOR

Robert G. Cox

MANAGING EDITOR

Jerry E. Mohoney

ASSISTANT MANAGING EDITOR

Dione Moxey

DEPARTMENTAL EDITORS

Charles C. Smith, Jr., M.D., Scientific

John W. Greene, Jr., M.D., Maternal
Mortality

BOARD OF CONSULTANTS ON SCIENTIFIC ARTICLES

Term Expires July 1, 1976

Gehrig M. Robinsan, M.D.

Mark S. Sexter, M.D.

Thomas E. Baath, M.D.

Patrick L. Jasper, M.D.

Oscar W. Thompson, M.D.

Stephen C. Schindler, M.D.

Van R. Jenkins, M.D.

Jahn W. Miller, M.D.

Term Expires July 1, 1975

Robert E. Arnold, M.D.

Robert A. Hall, M.D.

Chrisman S. Jackson, Jr., M.D.

Lafayette G. Owen, M.D.

Anne Richman, M.D.

Ruel T. Rault, M.D.

Frank G. Siman, M.D.

Leslie Van Nastrand, M.D.

Term Expires July 1, 1974

David S. Nightingale, M.D.

Dennis B. Penn, M.D.

Andrieus J. Dzenitis, M.D.

Joseph G. Whelan, Jr., M.D.

Canrad H. Jones, M.D.

Peter C. Campbell, Jr., M.D.

William E. Jackson, M.D.

Edgar W. Waltrip, M.D.

Published at 3532 Ephroim McDowell Drive,
Louisville, Ky. 40205
Phone (Area Code 502) 452-6324

Subscription \$10 (Members \$5)
Single Copy \$1

Second-class postage paid at Louisville, Kentucky.
Acceptance for mailing at special rates postage
provided in Section 1103, act of Oct. 3, 1917,
authorized May 25, 1920.

Contents

SCIENTIFIC ARTICLES

Pararenal Pseudocysts as a Result of Pelvic Surgery

Harold J. Schupbach, M.D. and
Irvin Bensman, M.D. 129

Hypertensive Intracranial Hemorrhage

Paul J. Arena, M.D. and J. Thomas Murrow, M.D. 132

Occupational Bladder Cancer

Lloyd B. Tepper, M.D. 135

The Prophylaxis of Infection Following Operative Procedures (Medical Progress)

Hiram C. Polk, Jr., M.D. 139

Cleft Lip and Palate (Grand Rounds)

W. M. Bryant, M.D. and W. L. Dowden, M.D. .. 144

SPECIAL ARTICLES

KMA PSRO Position Paper 148

Kentucky MECO '74 154

EDITORIAL

Health Planning 155

ORGANIZATION

HEW Withdraws Regulations Due to AMA Opposition 161

KMA Increases Washington Input on Recent Federal Proposals ... 161

RKMSF Accepts Applications, Increases Loan Amounts 161

Nominations Being Accepted for KMA Awards 161

Pulmonary Diseases Is Topic for Lexington Clinic Mtg 162

Rheumatic Diseases Symposium To Be Held May 9 162

"Cancer in Women" Meeting Set for May 31-June 1 162

REGULAR FEATURES

President's Page 119 Maternal Mortality 120

Postgraduate Opportunities .. 122

KENTUCKY MEDICAL ASSOCIATION

BOARD OF TRUSTEES—1973-1974

Officers

President	FRED C. RAINEY 912 Woodland Dr., Elizabethtown 42701 (502) 765-4147 .1974
President-Elect	HOYT D. GARDNER 508 Watterson City Bldg., Louisville 40218 (502) 452-2684 .1974
Immediate Past President	LEE C. HESS 7211 U. S. 42, Florence 41042 (606) 371-1153 .....1974
Vice-President	GABE A. PAYNE 1610 S. Main St., Hopkinsville 42240 (502) 885-8445 ....1974
Secretary	S. RANDOLPH SCHEEN 1163 Medical Arts Bldg., Louisville 40217 (502) 451-1661 .1975
Treasurer	KEITH P. SMITH Medical Arts Bldg., Corbin 40701 (606) 528-3211 .....1975
Speaker, House of Delegates ...	RICHARD F. GREATHOUSE 5 Triangle Center, Louisville 40220 (502) 458-3219 .....1974
Vice-Speaker	CARL COOPER, JR. Bedford 40006 (502) 255-3282 .....1974
Chairman, Board of Trustees ...	BALLARD W. CASSADY Pikeville Medical Bldg., Pikeville 41501 (606) 437-6698 ..1974
Vice-Chairman	PAUL J. PARKS 1109 State St., Bowling Green 42101 (502) 781-5111 ....1974

Delegates to the A.M.A.

J. THOS. GIANNINI, Suite 3E, Suburban Medical Plaza, Louisville (502) 897-2555	Jan. 1973-Dec. 1974
CHAS. G. BRYANT, (Alt.) 3357 Medical Arts Bldg., Louisville (502) 452-1558	Jan. 1973-Dec. 1974
JOHN C. QUERTERMOUS, 205 S. 8th St., Murray (502) 753-5161	Jan. 1974-Dec. 1975
WILLIAM W. HALL, (Alt.) Mayfair Square, Owensboro (502) 684-6255 ...	Jan. 1974-Dec. 1975
DAVID B. STEVENS, 333 Waller Ave., Lexington (606) 254-8008	Jan. 1974-Dec. 1975
THOMAS L. HEAVERN, (Alt.) 2435 Alexandria, Highland Hgts. (606) 441-7600	Jan. 1974-Dec. 1975

Trustees

1st	W. EUGENE SLOAN, 2320 Broadway, Paducah 42001 (502) 443-4581 .....1974
2nd	CHARLES C. KISSINGER, Atkinson Park, Henderson 42420 (502) 826-6271 ....1976
3rd	RALPH L. CASH, 210 West Main St., Princeton 42445 (502) 365-2037 .....1974
4th	W. BRUCE HAMILTON, 4th & Buckman, Shepherdsville 40165 (502) 543-6362 ...1974
5th	EDWARD N. MAXWELL, St. Joseph Infirmary, Louisville 40217 (502) 636-7461 ..1975
6th	PAUL J. PARKS, 1109 State St., Bowling Green 42101 (502) 781-5111 .....1975
7th	JOHN P. STEWART, 220 Steele St., Frankfort 40601 (502) 227-4718 .....1976
8th	CARL J. BRUEGGEMANN, 325 W. 19th St., Covington 41014 (606) 291-4768 ..1975
9th	JAMES L. FERRELL, Bourbon Medical Ctr., Paris 40361 (606) 987-2200 .....1976
10th	DAVID A. HULL, 2368 Nicholasville Rd., Lexington 40503 (606) 277-5711 ....1976
11th	R. EUGENE BOWLING, 527 W. Main, Richmond 40475 (606) 623-3754 .....1975
12th	ROBERT N. McLEOD, JR., 500 Bourne Ave., Somerset 42501 (606) 678-8155 ....1974
13th	J. WESLEY JOHNSON, 2301 Lexington Ave., Ashland 41101 (606) 325-1151 ....1976
14th	BALLARD W. CASSADY, Pikeville Med. Bldg., Pikeville 41501 (606) 437-6698 ..1974
15th	HAROLD L. BUSHEY, 406 Knox St., Box 770, Barbourville 40906 (606) 546-3024 1975

BUYERS GUIDE

MARCH BUYERS GUIDE FOR JOURNAL OF KMA 1974

Abbott Laboratories	125	Medical Protective Company	172
Burroughs Wellcome Company	160	Pharmaceutical Manufacturers Association	126-127
Dorsey Laboratories	121	Poythress, Wm. P., Company	163
Flint Laboratories	166-167	Rache Laboratories	114-115, 164-165, 173-174
General Leasing Corporation	170	Searle Laboratories	158-159
Hospital Corporation of America	162	Smith Kline & French Laboratories	157
Kentucky Arthritis Foundation	116	Southern Optical Company	172
Lilly, Eli and Company	128	U.S. Air Force	123
Marian Laboratories	168-169	Vick Chemical Company	171
McNeil Laboratories	124		



MESSAGE FROM THE PRESIDENT

AMA-KMA—What Do They Do For You?

HAVING been active in KMA activities for some time, I have long been impressed by our physical plant, our most capable staff, and our efficient operation, to say nothing of the vast amount of committee work which goes on all year for the benefit of *all* physicians. Recently, I had the opportunity to tour AMA Headquarters and to sit in on a meeting of the AMA Board of Trustees. I was impressed with both—perhaps awed by the vast operation of AMA, (to say nothing of the unbelievable number of services available for AMA members), the physical plant, and the number of employees. If only each physician would tour KMA Headquarters and AMA Headquarters to observe the day-to-day operation grinding out benefits not only for each of us, but for the general public, then we would no longer hear “what has organized medicine done for me?”

One only needs to review recent events to become aware that organized medicine quietly and unoffendingly does, in fact, represent each physician in all levels and all fields—and for those services we reap great benefit and pay relatively little.

What are some of those recent events?

AMA——

1. *Threatened suit against Secretary of HEW Weinberger to prevent preadmission certification for Medicare and Medicaid patients. The Secretary has since withdrawn this directive.*
2. *Sued the Cost of Living Council seeking permanent injunction against discriminatory Phase IV regulations.*
3. *Offered to join component state societies in suits to have set aside undesirable area designations of PSRO.*
4. *Presented testimony requesting exemption for physicians from gasoline rationing contingency plan.*
5. *Met with President Nixon to oppose pre-certification requirement.*

KMA——

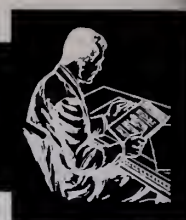
1. *Communicated twice with HEW and our Congressional delegation opposing preadmission certification requirements (Title XVIII and Title XIX).*
2. *Presented testimony to the Cost of Living Council and contacted our Congressional delegation requesting elimination of physician fee controls under Phase IV.*
3. *Petitioned the governments in Washington and Frankfort to allow sufficient gasoline for physicians in the event of gasoline rationing.*
4. *Instituted a survey of the U.S. Congressmen from Kentucky of viability of PSRO repeal efforts.*
5. *Working virtually daily in Frankfort on current legislative proposals and making a concerted effort to revamp and improve the Medicaid program.*

Without AMA and KMA where would we turn for organized efforts?

FRED C. RAINEY, M.D.



MATERNAL MORTALITY



From the Files of the KMA Maternal Mortality Study Committee

—Edited by John W. Greene, Jr., M.D.

THIS 31-year-old married Oriental gravida I, para 0 last menstrual period was December 5, 1971. The patient was found to have a pelvic mass on routine obstetrical evaluation at 13 weeks gestation. X-ray examination of abdomen showed displacement of sigmoid colon.

An exploratory laparotomy was done March 14, 1972 (at 14 weeks gestation) and bilateral ovarian masses were found. The right ovarian mass was 10-12 cm in diameter with the left mass measuring 6-7 cm. A pathology diagnosis of mucin producing papillary cystadenocarcinoma was made following bilateral salpingo-oophorectomy.

Before surgery both the patient and her husband made it quite clear that they did not want the pregnancy sacrificed.

Chemotherapy was started March 19, 1972, five days following surgery, with 50 mg of Alkeran being given in equal doses of 10 mg X 5 days. A second course of Alkeran was started April 10, 1972, with a third course started April 27, 1972. A fourth course of Alkeran was started May 22, 1972. The patient had no response to her Alkeran therapy and had a progressively deteriorating course over the next two months. She was readmitted to the hospital June 28, 1972 in a mentally confused state and in liver failure. The patient became comatose July 1, 1972 and expired July 7, 1972. No autopsy was performed. The cause of death, metastatic spread papillary cystadeno-

carcinoma. Pregnancy undelivered.

Comments

The Committee felt that this was an indirect obstetric death with no preventable factors. In the discussion the patient had been examined, and felt to have a normal pelvic examination approximately four weeks before the discovery of the mass. In four weeks time the mass had grown from a size with which it was not palpable to one that was compatible with approximately 20 weeks gestation. The tumor was widespread when surgery was performed, and total resection was impossible.

The only debatable point in the management of this case is the decision of the attending physician to leave the pregnancy and uterus in situ. This was in accord with the husband and the patient's wishes even though they had been advised that this tumor could be malignant before the surgery was performed. It was felt that leaving the uterus in no way interfered with the therapy of the patient subsequent to surgery since chemotherapy was initiated. A search of the literature by the physicians in attendance did not reveal any reported cases of direct fetal malformation subsequent to Alkeran therapy. Unfortunately, the patient's malignancy was resistant to the Alkeran therapy and she had a rapidly deteriorating course, which resulted in her death only three months after the initial diagnosis.



When a cough spoils your patient's day...

Triaminic® Expectorant

Each teaspoonful (5 ml.) contains:

Triaminic, 25 mg. (phenylpropanolamine hydrochloride, 12.5 mg.; pheniramine maleate, 6.25 mg.; pyrilamine maleate, 6.25 mg.); glyceryl guaiacolate, 100 mg.; alcohol, 5%.

When an antitussive is also desired, the same formulation plus 10 mg. codeine phosphate is available as **Triaminic Expectorant with Codeine**. (A Schedule V Controlled Substance.)

**The Adult Expectorant
that is great for kids, too.**



POSTGRADUATE OPPORTUNITIES



IN KENTUCKY

MARCH

- 20-21 Symposium on Cardiovascular Diseases, Heart Association of Louisville and Jefferson County, Stouffer's Inn, Louisville
- 26-27 Colposcopy Seminar*, University of Kentucky Medical Center; Registration: \$200; Lexington

APRIL

- 4 Annual Spring Conference, "Recent Advances in the Management of Pulmonary Diseases," Lexington Clinic and Lexington Clinic Foundation, Lexington.
- 5 "A Current Evaluation of an Old Problem: Diabetes Mellitus"*, University of Kentucky Medical Center; Registration: \$15; Lexington
- 22-23 Practice Management Workshop for New Physicians. Registration, \$35 for KMA members and \$60 for non-members. KMA Headquarters Office, Louisville.

MAY

- 1-2 Annual Meeting, Kentucky ENT Society, Ramada Inn/Bluegrass Convention Center, Louisville.
- 1-3 Symposium on Bone and Joint Radiology*, University of Kentucky Medical Center, Lexington
- 9 Postgraduate Symposium on Rheumatic Diseases (10th Annual), Health Sciences Center, University of Louisville School of Medicine, Louisville
- 15-18 Annual Assembly, Kentucky Academy of Family Physicians, Ramada Inn/Bluegrass Convention Center, Louisville.
- 27-31 "Practical Therapeutics in Internal Medicine"*, University of Kentucky Medical Center, Co-sponsored by American College of Physicians, Lexington
- 30-31 Emergency Health Care Seminar, Ramada Inn/Bluegrass Convention Center, Louisville
- 31-June 1 Fourth Biennial Symposium, "Cancer in Women," and Annual Meeting of Kentucky Obstetrical and Gynecological Society, Galt House, Louisville

*For further information contact Ronald D. Hamilton, M.D., Director, Continuing Education, College of Medicine, University of Kentucky, Lexington 40506

IN SURROUNDING STATES

APRIL

- 1-3 AMA Third National Congress on the Quality of Life, Marriott Motor Hotel, Chicago.
- 5-6 AMA-Southeast Regional Mental Health Conference, Marriott Hotel, Atlanta.
- 22-25 Spring Session, American Academy of Pediatrics, Bal Harbour, Fla.
- 29-May 2 Clinical Meeting, American College of Obstetricians and Gynecologists, Las Vegas

SCHEDULE OF UPCOMING PROGRAMS ON NETWORK FOR CONTINUING MEDICAL EDUCATION

(For listing of stations, see October issue, page 676)

March 11-March 24

THE BREAST EXAMINATION, Angelo J. De-Palo, M.D., Assistant Attending Surgeon, Memorial Hospital for Cancer and Allied Diseases, New York City.

IS IT SINUSITIS? Melvin E. Sigel, M.D., Clinical Associate Professor of Otolaryngology, University of Minnesota Medical School, Minneapolis.

AN EFFECTIVE WAY TO CONTROL PSORIASIS, Paul Lazar, M.D., Associate Professor of Dermatology, Northwestern University; Chairman of the Audio-Visual Committee at the American Academy of Dermatology; and Chairman of the AMA Task Force on Cosmetics, Evanston, Ill.

March 25-April 7

ALOPECIA IN DIAGNOSIS, Norman Orentreich, M.D., Clinical Associate Professor of Dermatology and Syphilology, New York University School of Medicine, New York City.

THE MEDICAL MANAGEMENT OF METASTATIC BREAST CANCER, Justin J. Stein, M.D., Professor of Radiology and President of the American Cancer Society, University of California, Los Angeles.

THE DIFFERENTIAL DIAGNOSIS OF SYSTEMIC LUPUS ERYTHEMATOSUS, Naomi F. Rothfield, M.D., Professor of Medicine and Chief, Arthritis Division at the University of Connecticut School of Medicine, Farmington, Conn.

COULD YOU TAKE 30 DAYS VACATION A YEAR AWAY FROM YOUR PRESENT PRACTICE?

You can as a United States
Air Force Officer!

In addition to the excellent salary, a very comprehensive benefits
and the full scope to practice your specialty, the Air Force
gives you the position and prestige due your profession. Weigh
confinement of your present practice against the travel
professional freedom you'll enjoy as a commissioned
officer. If you're a fully qualified physician, osteo-
pathic physician, dentist, veterinarian or optometrist,
spend a few minutes of your time to investigate
opportunities your United States Air Force can
offer you. You may find your private practice in
the Air Force.

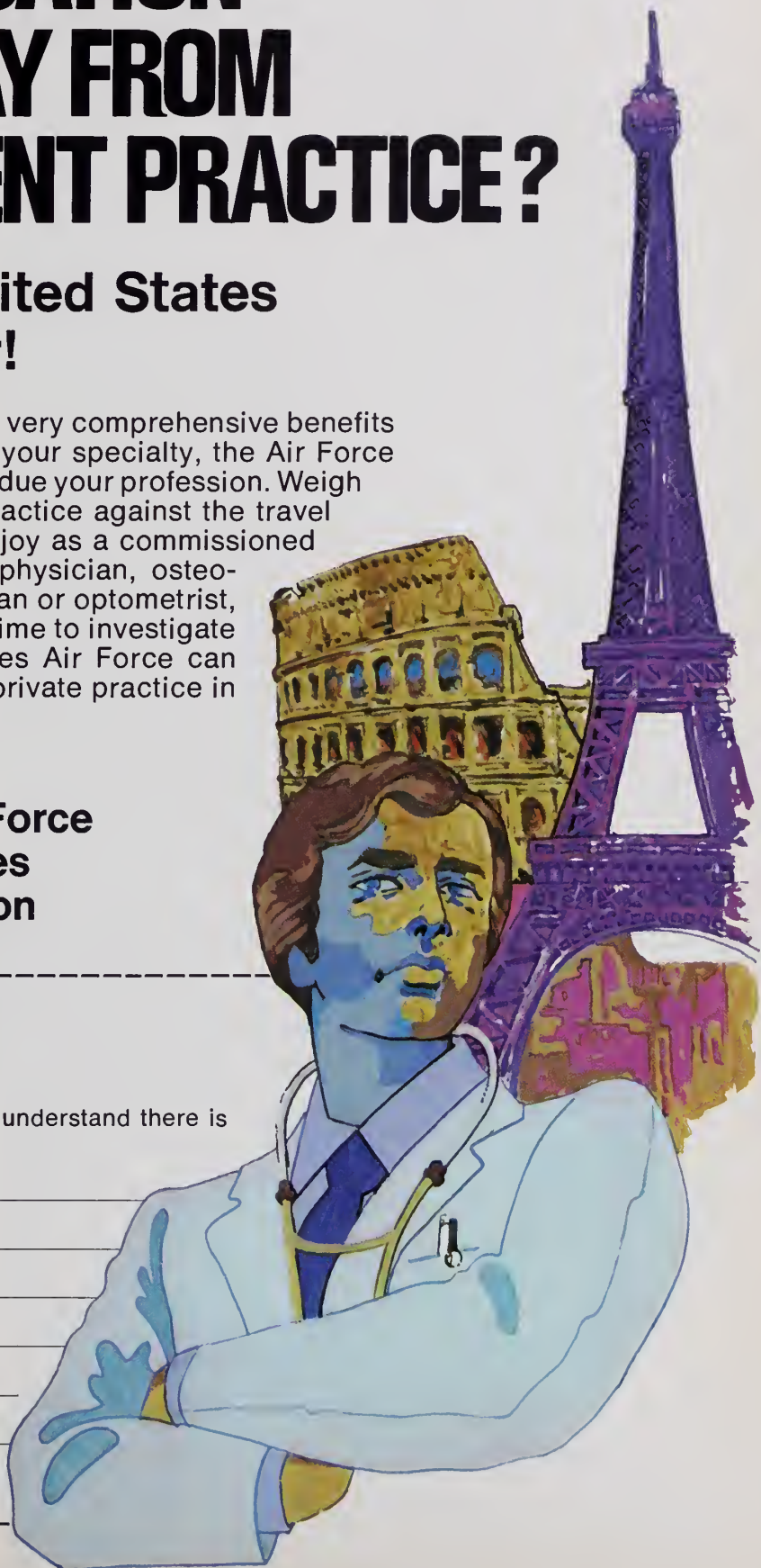
Get all the facts on Air Force
Health Care opportunities
Please mail in the coupon

Air Force Opportunities
Box 155
Scott AFB, Illinois 61866


Please send me more information. I understand there is
no obligation.

Name _____
(Please Print)
Address _____
City _____
State _____ Zip _____ Phone _____
Profession _____
Date of Birth _____

Air Force Medicine



The Rx that says "Relax"



BUTISOL Sodium provides highly predictable sedative minor dosage adjustments are usually all that's needed to produce the desired degree of sedation. (With 3 dosages and 4 strengths to make adjustments easy.)

BUTISOL Sodium offers prompt, smooth, relatively no cumulative action: begins to work within 30 minutes... because of its intermediate rate of metabolism, generates neither a "roller-coaster" nor a "hangover" effect.

BUTISOL Sodium is remarkably well tolerated: a 30-year safety record assures you that there is little likelihood of unexpected reactions.

BUTISOL Sodium saves your patients money: costs less than half as much as most commonly prescribed sedative tranquilizers.*

These are four good reasons for prescribing BUTISOL Sodium for the many patients who need to have the pain just a little slower. Its gentle daytime sedative action is all that's needed to help the usually well-adjusted patient cope with temporary stress.

*Based on surveys of average daily prescription costs.

Butisol  **SOD**
(SODIUM BUTABARBITAL)

Contraindications: Sensitivity or idiosyncrasy to barbiturates; history of manifest or latent porphyria or marked liver impairment; respiratory distress with dyspnea or obstruction; history of addiction to sedative/hypnotic drugs; uncontrolled pain, to avoid because of possible excitement.

Precautions: Exercise caution in: moderate to severe hepatic disease; anticoagulant therapy, because of possible increased metabolism of coumarins; withdrawal in drug dependence or the taking of excessive doses over a long period, to avoid withdrawal symptoms; elderly or debilitated patients, to avoid possible marked excitement or depression; use with or other CNS depressants, because of combined effects.

Adverse Reactions: Slight hangover, drowsiness, lethargy, headache, skin eruptions, nausea and vomiting, hypersensitivity reactions (especially with asthma, urticaria, angioneurotic edema, or similar conditions).

Usual Adult Dosage: For daytime sedation, 15 mg. to 30 mg. t.i.d. or q.i.d. For hypnosis, 50 mg. to 100 mg.

Available as: Tablets, 15 mg., 30 mg., 50 mg., 100 mg.; Elixir, 30 mg. per 5 ml. (alcohol 7%). BUTICAPS® [Capsules BUTISOL SODIUM (sodium butabarbital)] 15 mg., 30 mg., 50 mg., 100 mg.

McNEIL

McNeil Laboratories, Inc., Fort Washington, Pa. 19034

© McNeil 1971



Placidyl®
(ETHCHLORVYNOL)

Brief Summary

Indications—Placidyl (ethchlorvynol) is indicated for short-term hypnotic therapy in the management of insomnia.

Contraindications—Drug hypersensitivity and porphyria.

Warnings—Not recommended during the first and second trimester of pregnancy. Caution patients against possible combined exaggerated effects with alcohol, barbiturates, tranquilizers or other CNS depressants. Exaggerated effects might result in blurring of vision, paralysis of accommodation and profound hypnosis. Caution patients concerning driving a motor vehicle, operating machinery, or performing hazardous operations requiring alertness after taking the drug. ADMINISTER WITH CAUTION TO PATIENTS WITH SUICIDAL TENDENCIES AND DO NOT PRESCRIBE LARGE QUANTITIES OF THE DRUG. Adjustment of the dosage of oral anticoagulants might be necessary when beginning ethchlorvynol therapy, during therapy, or after stopping therapy. This drug is not recommended for use in children. PLACIDYL HAS THE POTENTIAL FOR THE DEVELOPMENT OF PSYCHOLOGICAL AND PHYSICAL DEPENDENCE. INSTANCES OF SEVERE WITHDRAWAL SYMPTOMS, INCLUDING CONVULSIONS AND DELIRIUM CLINICALLY SIMILAR TO THOSE SEEN WITH BARBITURATES, HAVE BEEN REPORTED IN PATIENTS TAKING REGULAR DOSES AS LOW AS 1000 MG. PER DAY FOR A PERIOD OF TIME WHEN THE DRUG WAS SUDDENLY DISCONTINUED. PROLONGED ADMINISTRATION OF THE DRUG IS NOT RECOMMENDED. Addition-prone patients or those who are likely to increase dosages of the drug on their own initiative should be observed for evidence of signs or symptoms which may indicate possible withdrawal or abstinence symptoms. Signs and symptoms associated with withdrawal and abstinence include unusual anxiety, tremor, ataxia, slurring of speech, memory loss, perceptual distortions, irritability, agitation and delirium. Other less well defined signs and symptoms, not necessarily due to withdrawal and abstinence, may include anorexia, nausea or vomiting, weakness, dizziness, sweating, muscle twitching and weight loss. Abrupt discontinuance of Placidyl following prolonged overdosage may result in convulsions and delirium.

Precautions—Toxic amblyopia has been reported with long-term continuous use of ethchlorvynol. Permanent visual defects have been observed, although amblyopia has improved after discontinuance of the drug. Drug dosage should be limited in elderly and debilitated patients to the smallest effective amount. If pain is present, this drug should only be given if insomnia persists after pain is controlled with analgesics. Caution is advised in prescribing the drug for patients who are being treated with either MAO inhibitors or antidepressants. Transient delirium has been reported with the combination of Placidyl and amitriptyline. Drug dosage should be reduced if prescribed for patients receiving MAO inhibitors or antidepressants. Caution should be exercised in patients with impaired hepatic or renal function. Patients do not respond unpredictably to barbiturates or alcohol, or who exhibit excitement and release of inhibition in association with such agents, may also react in this way to Placidyl. Rarely, patients may exhibit symptoms suggestive of an unusual susceptibility to the drug; such as prolonged hypnosis, profound muscular weakness, excitement, hysteria, syncope without marked hypotension. Transient dizziness or ataxia may occur.

Adverse Reactions—Hypotension, nausea or vomiting, gastric upset, aftertaste, blurring of vision, dizziness, facial numbness, and allergic reaction complicated by urticaria have been reported following Placidyl administration. Mild "hangover" and symptoms of mild excitation have occurred in some patients. There have been rare reports of cholestatic jaundice occurring in patients taking ethchlorvynol. A few cases of thrombocytopenia have been reported in patients receiving ethchlorvynol. 304431

Give us his nights.

Prescribe Placidyl. Chances are, we'll give him a good night's sleep.

Insomnia may often accompany surgical convalescence. During those long nights following surgery, sleep can be as elusive as it is vital.

When sleep is synonymous with therapy, remember . . . Placidyl is synonymous with sleep. It has been for over 17 years.

If time is the criterion to inspire your confidence . . . you can rest assured with Placidyl.

Prescribed by physicians for over 17 years.

Placidyl®



(ETHCHLORVYNOL CAPSULES, 500 or 750 mg.)



It's time for action to defend the laws and regulations that protect your patients against drug substitution.

These professional and trade organizations are united in supporting ant substitution statutes and regulation

The American Academy of Dermatology

The Board of Directors of the
American Academy of Family
Physicians

The Executive Board of the
American Academy of Neurology

The Committee on Drugs of the
American Academy of Pediatrics

The American College of Allergists

The Executive Committee of the
American College of Obstetricians
and Gynecologists

The Board of Regents of the
American College of Physicians

The Board of Trustees of the
American Dental Association

The Board of Trustees of the
American Medical Association

The American Psychiatric Association

The Executive Committee of the
National Association of Retail
Druggists

The Board of Directors of the
Pharmaceutical Manufacturers
Association

The National Wholesale Druggists' Association



Statement on Antisubstitution Laws and Regulations

The purpose of this statement is to affirm the support of the participating organizations for the laws, regulations and professional traditions which prohibit the unauthorized substitution of drug products.

Traditionally, physicians, dentists and pharmacists have worked cooperatively to serve the best interests of patients. Productive cooperation has been achieved through mutual respect as well as a common concern for the ideals of public service. This mutual respect has been reflected, in part, by joint support for the years for the adoption and enforcement of laws and regulations specifically prohibiting unauthorized substitution and encouraging joint discussion and selection of the source of supply of drug products. The basic principles of medical, dental and pharmacy practice are thus safeguarded and preserved in the interest of patient welfare.

The antisubstitution laws have obstructed enhancement of the professional status of pharmacy more than they have in and of themselves guaranteed absolute protection from unsafe drugs, or freed physicians, dentists and pharmacists in their responsibilities to patients. As a practical matter, however, such laws and regulations encourage interprofessional communications regarding drug product selection and assure each profession the opportunity to exercise fully its expertise in drug selection, to the advantage of patients.

Physicians and dentists should be urged to increase the frequency and regularity of their contacts with pharmacists in selection of quality drug products, recognizing that

economies to patients can be improved through such communication, taking into account the patients' needs. The pharmacist's knowledge of the chemical characteristics of drugs, their mode of action, toxic properties and other characteristics that assist in making drug selection decisions should be utilized to the fullest extent practicable by physicians and dentists in serving their patients.

Since drug product selection entails knowledge derived from clinical experience, the physician's and dentist's roles in product selection remain primary and do not permit delegation of decisions requiring medical and dental judgments. A broader role in therapy will evolve for pharmacists as improved understanding and cooperation among the professions continue to grow.

There has been no evidence that there are convincing reasons to modify or repeal existing laws and regulations prohibiting the unauthorized substitution of another drug product for the one specified by a prescriber. It is our belief that such laws and regulations merit the joint support of the medical, dental and pharmaceutical professions and the pharmaceutical industry.

Add your opinion to the weight of other professionals and send it to your state assemblyman or legislator.

*Pharmaceutical Manufacturers Association
1155 Fifteenth Street, N.W., Washington, D. C. 20005*





Not too little, not too much...
but just right!

"Just right" amounts of Ilosone Liquid 250
can be dispensed easily from the pint bottle in *any* quantity
you specify to meet your patients' precise needs—
without regard to package size.

ready-mixed

ILOSONE[®] LIQUID 250
ERYTHROMYCIN ESTOLATE
(equivalent to 250 mg. erythromycin per 5-ml. teaspoonful)

Additional information available to the profession on request.



Dista Products Company
Division of Eli Lilly and Company
Indianapolis, Indiana 46206

400054

The JOURNAL *of the* Kentucky Medical Association

ISSUED MONTHLY UNDER THE DIRECTION OF THE BOARD OF TRUSTEES

VOLUME 72

MARCH 1974

No. 3

Pararenal Pseudocysts as a Result of Pelvic Surgery†

HAROLD J. SCHUPBACH, M.D. and IRVIN BENSMAN, M.D.

Owensboro, Kentucky

The case reported cites an instance of pararenal pseudocyst which followed pelvic surgery and is believed to have resulted from injury to the distal ureter.

Retroperitoneal extravasation of urine with the resultant formation of a pseudocyst in the region of the kidney has been described as a complication of external trauma or as a result of urological intervention, particularly pyelolithotomy and other procedures performed upon the renal pelvis and upper ureter.

The following case report cites an instance of pararenal pseudocyst which followed pelvic surgery and is believed to have been the result of inadvertent injury to the distal ureter.

Case Report

A 23-year-old housewife underwent a hysterectomy, bilateral salpingo-oophorectomy, and appendectomy for retroversion and dyspareunia. She experienced a stormy postoperative course with fever, malaise, abdominal swelling, and distention. On the seventh postoperative day, a left pleural effusion was noted (Fig. 1.) Aspiration of the effusion disclosed many pus cells but no bacterial growth occurred. She had received 2 gm of tetracycline per day from the time of surgery up until the

time of occurrence of the pleural effusion. She was then given carbenicillin in a dose of 30 gm a day and 200 mg a day of colistin with gradual recovery and clearing of the effusion and slow subsidence of abdominal swelling and distention.

She returned for follow-up evaluation of her pulmonary status 35 days after operation

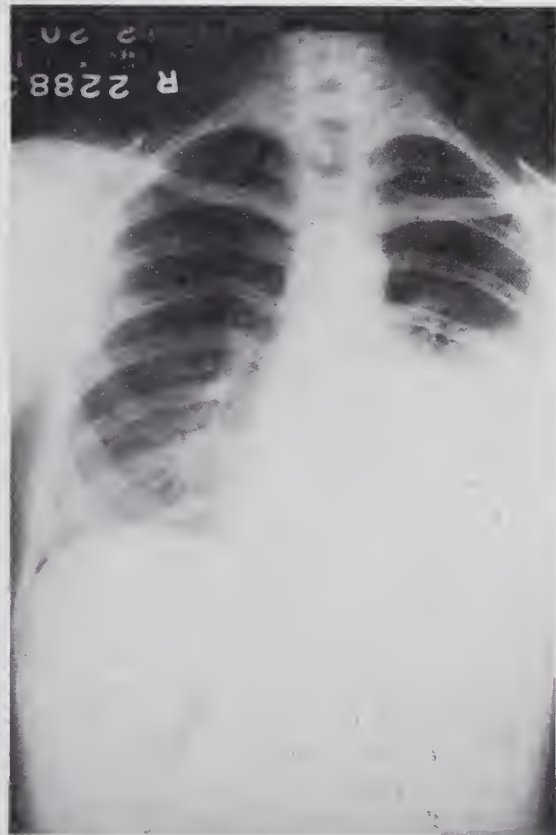


Figure 1

†From the Departments of Internal Medicine and Urology, Owensboro-Daviess County Hospital, Owensboro



Figure 2

and complained at the time of left flank pain. The lungs were now clear but a large left abdominal mass was noted extending medially to the midline and inferiorly to the iliac crest. An intravenous urogram was obtained which showed normal renal function and architecture on the right. Faint dye output and apparent hydronephrosis were present on the left (Fig. 2). Retrograde catheterization was then performed with the finding of a complete obstruction of the left ureter 10 cm above the ureterovesical junction (Fig. 3).

Forty-one days following the initial surgery, a left flank exploration was undertaken. Upon entering the retroperitoneal space, a large mass was found occupying the entire area and was adherent to the peritoneum anteriorly and to the abdominal wall posteriorly. During manipulation, the mass accidentally ruptured and approximately 500 cc of clear fluid drained. The cystic mass and kidney were then removed.

Tissue submitted for pathological study consisted of the left kidney, attached cyst, and a portion of the ureter. The cyst wall was composed of thick fibrous, hemorrhagic granulation and inflammatory tissue and showed no

evidence of a serosal lining (Fig. 4). The actual communication between cyst wall and ureter was not demonstrated. Microscopic sections of the kidney showed normal appearing glomeruli, tubules, and vessels. There was some scarring and chronic inflammation in the area of the renal pelvis. Sections of the ureter showed some thickening of the wall and absence of epithelium in some areas.

Comment

Confusion as to the origin of the fluid containing tumefactions adjacent to the kidney is commonplace. This confusion stems in part from the rarity of such disorders. It is also derived from the failure to differentiate histologically true cystic structures from those not actually possessing a secretory lining and lastly may result from terminology that fails to establish the anatomical location of the cystic mass in relation to the kidney. Sauls and Nesbit¹ have clarified and separated the entity resulting from urinary extravasation by appropriate descriptive terminology. Their designation "pararenal pseudocyst" describes an abnormal swelling in the vicinity of the renal structure having the superficial appearance of



Figure 3



Figure 4

cyst but lacking an internal secretory or epithelial membrane. Such cyst-like structures appear to result from extravasation of urine from the kidney, renal pelvis or ureter. The usual course of events following urinary extravasation is resorption but if sufficient loculation should occur, tissue inflammatory reaction may result in a fibrous cyst-like structure surrounding the accumulation of urine. The most common cause of such urinary extravasation is trauma such as pyelotomy, ureterotomy, or external trauma resulting in tears or avulsion of the kidney, pelvis, or ureter.² In such instances, urinary extravasation and probably some measure of obstruction (perhaps due to clots) result in sufficient leakage to produce a localized accumulation of urine about which tissue reaction forms a sac-like pseudocyst.

The occurrence of ureteral injury during

pelvic surgery is well known. The usual consequences, unless promptly recognized, are either hydronephrosis and the destruction of the kidney or the formation of a uretero-vaginal fistula.³

Spriggs⁴ in his discourse on Perinephric Cysts attributes obstruction as a cause of perinephric extravasation of urine and states that "a blood clot in the pelvis or ureter, or cicatricial ureteric stenosis, prevents the urine secreted by the kidney from descending by the natural passage, and the raised urinary pressure forces urine through a rent, . . ." Such an event, apparently extravasation of urine from the ureter as a result of increased hydrostatic pressure secondary to ureteral obstruction, would seem to be the mechanism in the present case. This must be an exceedingly uncommon occurrence but it should be considered a possible consequence of ureteral injury complicating pelvic surgery.

It is probable that the pleural effusion occurring in the present case was directly related to the infradiaphragmatic inflammatory process. If its significance had been suspected earlier, this might have led to earlier urologic investigation with the possibility for salvage of the affected kidney.

Conclusion

We have presented an unusual sequela of ureteral injury due to pelvic surgery. A pararenal pseudocyst occurred following obstruction of the distal ureter. Its occurrence was accompanied by a left pleural effusion. Earlier recognition of the disorder might have allowed re-anastomosis of the ureter and preservation of the kidney.

References

1. Sauls, C.L. and Nesbit, R.M.: Pararenal Pseudocyst. A report of 4 cases, *J. Urol.* 87, 288-296, 1962.
2. Hudson, H.C. and Hundley, R.R.: Pararenal Pseudocyst, *J. Urol.* 97:430-443, 1967.
3. TeLinde, R.W. *Operative Gynecology*, 4th ed. Philadelphia: J.B. Lippincott, p. 273, 1970.
4. Spriggs, A.I. Perinephric Cysts, *J. Urol.* 67:414-432, 1952.

Hypertensive Intracranial Hemorrhage†

PAUL J. ARENA, M.D. AND J. THOMAS MURROW, M.D.

Louisville, Kentucky

A 35-year-old male presented with hypertension, intracranial hemorrhage and myocardial insufficiency. Medical management of hypertension and surgical decompression resulted in favorable outcome.

SURVIVAL after hypertensive intracranial bleeding is poor. The favorable outcome in our present case instrumented through a multidisciplinary approach prompted this case report.

Case History

A 35-year-old Caucasian male postal worker was admitted through the emergency room with a blood pressure of 268/170. At the time of admission, he was unable to move his left arm and leg and he also had left lower facial weakness.

The past history was significant; the patient had Bright's Disease at age 16 with hypertension and hematuria. Later in adult life he was noted to have hypertension on physical examination for the postal service, and he was treated with anti-hypertensives. There was no family history of hypertension or renal disease.

Physical exam: Temp. 98° F., Respiration 22. B/P, left arm 268/179, right arm 270/165, Pulse 100-regular. Examination of the head revealed no signs of trauma; the eyes showed pinpoint pupils which reacted sluggishly to light and the extraocular muscles were intact. Funduscopic examination revealed marked arteriolar narrowing bilaterally with flame-shaped hemorrhages and haziness of the disc margins.

The neck was supple without an enlarged thyroid. There was jugular venous distention to 8 cm. The chest was clear to percussion;

auscultation revealed bilateral crepitant rales.

Abdominal exam: Negative. Neurological exam: There was nuchal rigidity, a left lower facial weakness, left hemiplegia, and a Babinski sign on the left. Pupils were pinpoint with slow reaction to light; speech was slurred.

Laboratory: Hgb 15.9 gms %; WBC 12,000; Polys 88; Stabs 5; Monos 6; Eos 1. VMA and Catecholamine studies-normal. Urine: 30 mg % protein; S.G. 1.007; WBC, Bact. RBC, -Zero. BUN 23; Na 142; K+ 3.8; CO₂ 27; Cl 102; Creatinine 2.1. Chest x-ray (Fig. 1) showed a prominent left ventricle. EKG: Left atrial enlargement, left ventricular hypertrophy (Fig. 2). A lumbar puncture was not done.

Hospital Course

Response to IV Furosemide 200 mg and



FIG. 1

Bedside Chest: There is cardiac enlargement with primarily left ventricular prominence. Also noted is increased vasculature consistent with congestive heart failure.

†From the Department of Medicine, St. Joseph Infirmary, Louisville

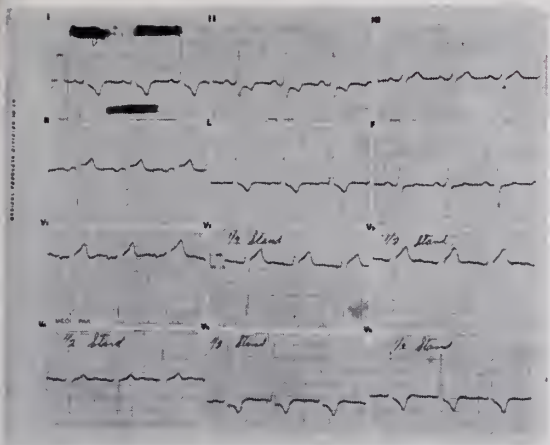


FIG. 2

hypertrophy and ischemia.

EKG: Sinus rhythm, ventricular rate 80, PR 0.19, QRS—0.08 seconds. Impression—consistent with left ventricular

Hydralazine 20 mg led to a prompt reduction in blood pressure to 150/90. Both drugs were continued at four- to six-hour intervals with tapering of the Furosemide dose. The patient was digitalized and maintained on 0.25 mg Digoxin p.o. daily. Because of fluctuating blood pressure (systolic 150-200) (diastolic 90-110) neurosurgical consultation was called. An arteriogram (Fig. 3) revealed a mass consistent with a hematoma in the area of the right putamen and caudate nucleus.

After initial steroid premedication the patient was taken to surgery with craniotomy; and evacuation of the intracranial hematoma was carried out. The patient was then placed on Alpha Methyl-Dopa 250 mg qid and Hydralazine 10 mg qid with maintenance of his diastolic B/P at 90 mm. The left hemiplegia persisted and he was started on a program of occupational therapy with passive exercises of his extremities. Seventeen days postoperatively the patient developed pain, warmth and a positive Homan's sign in his left calf. However, because of his postoperative neurosurgical status, anticoagulants were withheld. Three days later, the patient complained of chest pain with hemoptysis and a lung scan revealed two areas in the chest consistent with pulmonary infarction. Despite only conservative measures the patient continued to improve.

He was discharged three weeks after surgery on Hydralazine 10 mg qid, Alpha Methyl-Dopa 250 mg qid, Furosemide 40 mg daily, and Digoxin 0.25 mg daily.

Discussion

The most common cause of cerebral hemorrhage is hypertension and the most common site of bleeding is the internal capsule.¹ The approach in our present case was problematical since diagnosis required exclusion of the possibility of a ruptured cerebral aneurysm. However, the history of previous glomerulonephritis, hypertension in adulthood with myocardial insufficiency, and involvement in the capsule strongly suggested hypertensive hemorrhage.

Agents selected in controlling hypertension were Hydralazine, Alpha Methyl-Dopa, and Furosemide. Hydralazine² acts directly on arterioles causing relaxation of the vessel wall.² An increased cardiac output ensues as well as enhanced splanchnic and renal flow. Alpha Methyl-Dopa interferes with aromatic amino acid decarboxylation and hence synthesis of

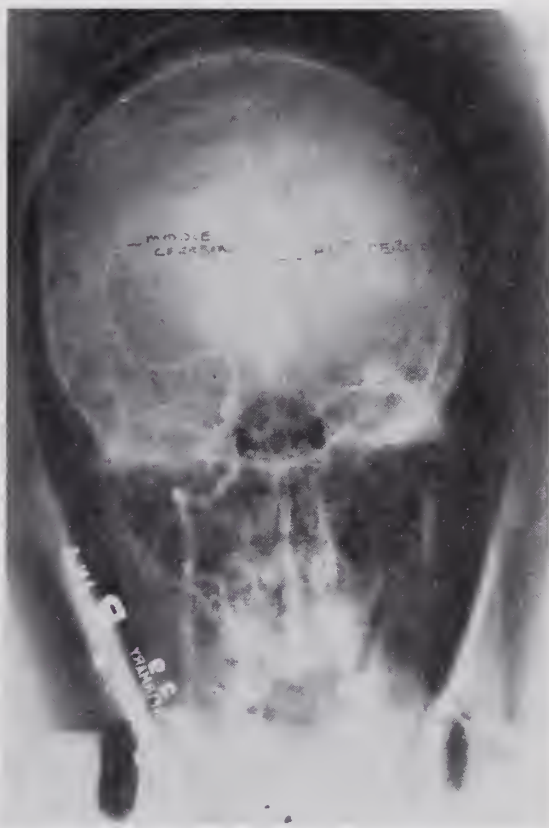


FIG. 3

Right retrograde brachial arteriogram with additional right carotid by direct puncture: The anterior cerebral is displaced from the midline toward the left side a distance of 5 mm. The ascending branches of the middle cerebral and the angiographic point as seen in the AP view appear to be displaced laterally throughout their course with a widened space between the middle cerebral vessels and the anterior cerebral vessels.

norepinephrine.² Moreover, a false neurotransmitter (L methyl-norepinephrine) is formed which may displace norepinephrine. Diuretic action involves changes in water and electrolyte content of the arteriolar walls with consequent decrease in peripheral vascular resistance. Immediate effects related to changes in total intravascular volume may also play a role.

A recent report has described successful surgical therapy in five patients with cerebral herniation.³ Of importance in these cases was the rapid institution of medical and surgical therapy—including control of increased intracranial pressure with hyperventilation and steroids³ as was utilized in the present case.

Surgical decompression has a dual role since

decrease in cerebral pressure releases a sympathetic hypertensive stimulus to posterior brain structures.⁴

This experience suggests that rapid diagnosis along with medical and surgical intervention in selected cases of contained intracranial hemorrhage may prove lifesaving.

References

1. Lord Brain, D.M., M.P.C., *Clinical Neurology*, 2nd edition, Oxford Univ. Press., London, N.Y., Toronto, pg. 204, 1964.
2. A. N. Brest, G. Onesti, C. Swartz, R. Seller, K. E. Kim, J. Chintz, Mechanisms of Antihypertensive Drug Therapy, *JAMA* 211:480-484, Jan. 19, 1970.
3. M. T. Zervas, J. Hedly-Whyte, Successful treatment of Cerebral Herniation in five patients, *NEJM* 286:1075-1077, May 18, 1972.
4. C. H. Evans, V. Westfall, N. Atuk, Astrocytoma Mimicking the features of Pheochromocytoma, *NEJM* 26:1397-1399, June 29, 1972.

Manuscript Memos

Manuscripts should be submitted in duplicate to *The Journal of KMA*, an original copy and one carbon, and typed with double spacing. Maximum length of an article should not exceed 4500 words; the Board of Consultants on Scientific Articles prefers that they be briefer than this when possible.

In submitting a manuscript, the author is requested to include a concise summary, not to exceed 35 words, to be used as a sub-title when the article is published in *The Journal*. The purpose of the summary is to create additional interest and encourage greater readership.

Footnotes and bibliographies should conform to the style of the *Quarterly Cumulative Index Medicus* published by the American Medical Association. This requires in the order given name of author, title of article, name of periodical, with volume, page, month—day of month if weekly—and year. *The Journal of the KMA* does not assume responsibility for the accuracy of references used with scientific articles.

All scientific material appearing in *The Journal* is reviewed by the Board of Consultants on Scientific Articles. The editors may use up to six illustrations with the essayist bearing the cost of all over three one-column halftones.

Arrangements for reprints of an article should be made directly with the publisher of *The Journal*, Gibbs-Inman Printing Company, 817 W. Market St., Louisville, Ky.

The bylaws of the Kentucky Medical Association provide that all scientific discussions and papers read before the KMA Annual Meeting shall be referred to the KMA Journal for consideration for publication. The bylaws further state that the editor or the associate editor may accept or reject these papers as it appears advisable and return them to the author if not considered suitable for publication.

Please mail your scientific articles to *The Journal of the Kentucky Medical Association*, 3532 Ephraim McDowell Drive, Louisville, Kentucky 40205.

Occupational Bladder Cancer†

LLOYD B. TEPPER, M.D.*

Rockville, Maryland

It has been suggested that the majority of all neoplasms in man have their underlying etiology in chemical or physical influences of the environment.¹ Accordingly a concerted effort is being made to understand these influences and the manner in which they bring forth disease in man, an outcome which reflects both the specific characteristics of the agent and of the target. Occupational or environmental cancers of the urinary system, especially of the bladder, provide an instructive example of environmental carcinogenesis. Moreover, this particular category of disease merits the attention of the practicing physician since he may have responsibility for the care of patients who are vulnerable because of their occupational placement. Additionally there is an important preventive medical aspect, wherein the physician has a central role.

This brief overview will focus on some of the more practical aspects of occupational bladder cancer as may be of importance to the practicing physician. Various theories as to mechanisms of carcinogenesis and discussions of the bladder cancer problem in Africa related to the prevalence of parasitic infestations by *Schistosoma hematobium* have been examined in comprehensive publications^{2,3,4} but are outside the scope of this presentation. We are therefore talking about chemical carcinogenesis that may arise in the domestic chemical industry.

There is nothing morphologically or anatomically specific about these tumors; they do not have the almost etiology-specific character that associates asbestos and mesothelioma, radium and carcinoma of the nasal sinuses and mastoid air spaces, or coal tar and carcinoma of the scrotum.

Of the occupational tumors of the urinary system, over 90% arise in the bladder. This localization may reflect the anatomical and

functional characteristics of the urinary tract which cause the urine, presumably containing the active carcinogens, to remain in prolonged contact with the bladder mucosa. Indeed the erect posture of man promotes contact especially with the trigone, where the majority of occupational bladder cancers occur. Interestingly, experimental cancer of this type in animals involves primarily the sides and vault of the bladder, the more dependent and more exposed areas in these species.

Inasmuch as occupational bladder cancers present little if anything which is distinctive from the clinical points of view, it would be most profitable in the limited time available to stress the epidemiological, occupational, and preventive medical aspects of the disease. Nevertheless, a few clinical points are appropriate as an introduction.

First with respect to symptoms, experience from a variety of sources shows that subjective complaints are the exception rather than the rule. Not until a definite anatomical lesion appears are there symptoms such as pain or hematuria. Confusion sometimes arises because certain aromatic amines such as aniline can cause cystitis with hematuria and painful urination. In an employee population suspected of exposure to bladder carcinogens, these manifestations attributable to a non-carcinogen can create apprehension and diagnostic uncertainty.

With a greater reliance upon cystoscopy in both clinical follow-up and preventive medical surveillance, the evolution of disease has been subjected to direct examination. The earliest manifestation in man, as in the experimental animal, is the appearance of "hemorrhagic spots" consisting of zones of ectatic capillaries with radiating engorged larger vessels beneath the epithelial lining. Small hemorrhagic extravasations may be present. Localized mucosal thickenings, flat or elevated and brown-red to blanched in color, may show surface roughness and a tendency to bleed. Sequential examination shows that such thickenings may spontaneously regress, but progression to a clearly

†Presented at the 1973 KMA Annual Meeting on September 19 at the Bluegrass Convention Center, Louisville

*Associate Commissioner for Science, Food and Drug Administration, Rockville, Md.

neoplastic lesion is more common. Such thickenings are not, however, a requisite antecedent of tumors, most of which arise on tissues which had been previously normal to inspection.

A tumor may appear first as a small edematous polyp. Developed tumors are most often papillomatous, either pedunculated or sessile, with plump villi, some of which may show hemorrhagic tips or sloughing. Multicentric growths may be present. Malignant tumors show extension through the bladder wall to adjacent tissues more commonly than metastatic dissemination.

Histological examination of these neoplasms shows variety in structure including papillomas with benign morphology, combinations of benign and malignant cells, papillary carcinomas of transitional cell type, and less commonly, nodular infiltrative carcinomas of transitional cell, squamous cell, or glandular structure or even sarcomas. The ratio of benign to malignant bladder tumors of occupational etiology varies with different observers; however, a summary would suggest that malignant tumors predominate by a ratio of two or three to one. It is not clear that any particular tumor type is strongly associated with any particular chemical agent. Multifocal neoplastic and preneoplastic changes in the bladder epithelium are common and complicate accurate assessment of whether or not an apparent "recurrence" is in fact renewed growth from a previously recognized and treated site or a frankly new growth not previously noted.

There is nothing distinctive with respect to the recommended treatment of occupational bladder tumors, and fulguration, surgical resection, cystectomy, and ureteral transplantation have all been indicated in individual patients. The frequent involvement of the bladder floor often necessitates relatively radical treatment. The prognosis is obviously influenced by the intensity of follow-up, especially because of the high rate of recurrence or development of additional tumors. Experience shows that over the course of five years after surgery, perhaps one half of all patients will develop new (or recurrent) growths.

The central part of this discussion deals with the work environment in which occupational bladder tumors arise and the steps which are appropriate in the medical control of the

hazard. As you know, we are talking about the so-called "aniline" dye industry, a somewhat misleading designation since it is doubtful that aniline itself has anything to do with the induction of tumors. Nevertheless, there is a series of aromatic amines and related azo compounds which are known to be causally associated with tumors of the urinary system in man or in animals and which are associated with this segment of the chemical industry.

The historical background of these tumors rests upon the observations of Rehn, a surgeon of Frankfurt-am-Main, who in 1895 reported to the German Surgical Society three men with bladder tumors out of 45 workers in fuchsin synthesis. As might be anticipated, there was much skepticism as to the validity of this report, and indeed the existence of hemorrhagic cystitis from various non-carcinogenic amines may have confused the picture. By 1906 Rehn had accumulated 38 cases of bladder tumors in seven factories producing, in addition to aniline and fuchsin, benzidine and naphthylamine. Subsequent reports from Switzerland and elsewhere in Germany soon confirmed the carcinogenic potential of several of these compounds. American complacency with respect to this disease was dispelled in 1934, when Gehrman reported 27 cases, the first of which followed by 16 years the development of a significant domestic coal-tar dye industry. By 1937, almost 3,000 cystoscopic examinations had been performed revealing 85 cases of bladder cancer. The current estimate approximates 600 cases² for the United States with several hundred additional workers or ex-workers under current medical surveillance.

The total number is perhaps less impressive than the attack rate, for in some industrial establishments essentially all exposed workers appear to have developed the disease over the course of years.² In other situations a smaller proportion of workers have developed bladder tumors; however the fraction invariably increases as the period of observation is extended, with or without additional exposure. In a 1973 report 13 of 25 benzidine workers at a single plant had developed bladder tumors.⁵ In other words: these are clearly carcinogens of unusual potency. The risk appears to be highest among those whose exposure commences at an early age, especially under 20.⁶

The duration of exposure related to the incidence of bladder tumors is highly variable, usually some 10-20 years, and is of uncertain significance inasmuch as intensity of exposure during that period is undoubtedly also relevant. There is some evidence to support the view that the first five years of exposure actually initiate the tumorigenic process and that exposure subsequent to this period does not additionally influence the risk.⁷

Tumors of this type do not appear promptly upon exposure, and a latent period separates the initiation of exposure and evidence of disease. This latent period may be as short as several years, but it is typically longer, usually 10-20 years.

AROMATIC AMINO COMPOUNDS

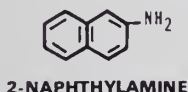
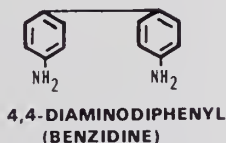
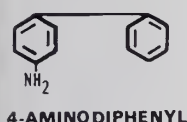


FIG. 1. Aromatic Amino Compounds Carcinogenic in Man

At least three aromatic amines are known to be causally associated with occupational neoplasms of the urinary system in man:

- 4-aminodiphenyl (xenyamine)
- 4,4'-diaminodiphenyl (benzidine)
- 2-naphthylamine (β -naphthylamine)

It is more than likely that other related compounds have similar cancer-inducing potential for man; animal experiments show that this is highly probable. For a number of these compounds, industrial exposure to combined or impure materials is the rule, so that a suspect carcinogen may be contaminated by a known carcinogen, such as benzidine. Accordingly, epidemiological interpretations are difficult.

At this moment a technical committee formed at the request of the Labor Department is considering a list of 14 compounds, including bladder carcinogens which we have been discussing, with a view toward prohibiting any

industrial use of the listed materials outside a closed system. While totally enclosed operations are familiar to the nuclear energy and chemical industries, conventional manufacturing practices are rarely of this sort. Accordingly there is much dispute as to the proper course of administrative action. But the evidence for the carcinogenic potency of these compounds and the high attack rate among workmen indicate that strict control of exposure is surely warranted and must be achieved by suitable means.

As to the specific industries in which exposure to aromatic amines may occur, the list extends far beyond the basic chemical industry in which these compounds are produced, used as intermediates in the production of other compounds, and processed for distribution. Even in the chemical industry, however, exposure may not be apparent in the case of workers who operate tar stills, repair equipment, or dispose of barrels or drums. The compounds under discussion are basic to the production of dyes and rubber (antioxidants), and may find use in the production of leather and textiles, pigments and paint, paper, and in the laboratory. Most physicians will recall the almost universal use of benzidine solution in the once standard test for occult blood in biological materials. The mortality rate from urinary tract cancer has been found to be elevated as compared to the predicted rate based upon controls in the dyestuffs, rubber, and leather industries and among industrial workers manufacturing paint and organic chemicals.⁸ Epidemiological evaluations of this type indicate that approximately 20% of bladder cancer in man may be attributed to occupational exposure.

Obviously the first line of defense against potentially injurious exposure to these bladder carcinogens rests in the prohibition of their production and the use of alternative compounds to achieve the desired technical effect. When this is not possible, reliance must be placed upon appropriate engineering controls. Whether or not a totally enclosed production system should be mandatory is discussable, but the fact remains that the dose-effect curve for these potent agents is not established. It is also clear that absorption may occur via the respiratory tract or through the intact skin, so that

protective equipment must be carefully designed and maintained.

A wide variety of available engineering controls focus attention upon ventilation, process layout, use of appropriate building materials, laundry management, and locker room and shower practices. A code of recommended precautions and hygienic practices for workers who handle aromatic amines has been prepared by the Chester Beatty Research Institute. Meticulous attention to employment, health, and exposure records is part of an acceptable program.

The physician is properly asked to provide guidance with respect to medical surveillance, treatment of clinical manifestations, and active control when the index of suspicion as to the causation of disease in a worker suggests that fellow workers are being adversely exposed in an occupational setting without their knowledge or the knowledge of their employers. The widespread utility of many of these compounds, known or possible bladder carcinogens, outside the "aniline" dye industry may serve to conceal their biological properties from the toxicologically unsophisticated.

Experience has shown annual cystoscopy and the cytological examination of urinary sediments to be effective tools in the surveillance of exposed populations. Workers without tumors are rarely willing to undergo routine cystoscopy in the absence of symptoms or widely prevalent disease among their associates. Exfoliative cytology is therefore regarded as an indispensable method of choice in the screening of workers who incur the risk of occupational bladder tumors. The ease and convenience of the examination encourages regular

participation, which would be uncommon if cystoscopy were to be required. Simple microscopic inspections of urine sediment for red blood cells have not proved useful.

Once disease has been identified, or when there is potential for recurrences, periodic endoscopic examination of the bladder wall is more acceptable to those at risk. The 1973 series⁵ indicated an average of 25 examinations for each worker. The prognosis is undoubtedly related to the adequacy of medical surveillance, for early diagnosis and treatment with regular follow-up is basic to the limitation of tumor progression.

This brief presentation has been intended primarily to raise your index of suspicion with respect to the etiology of tumors of the urinary tract to the end that adverse exposure to chemicals and the risk of related disease can be limited. The basic message, however, extends to tumors in general and suggests that alert practitioners and adequate epidemiological appraisal of large population groups can contribute significantly in the control of serious occupational disease.

References

1. U.S. Congress, Senate, Government Operations Committee (1971) *Chemicals and the Future of Man: Hearings Before the Subcommittee on Executive Reorganization and Government Research*, 92nd Congress, 1st Session, April 6 & 7, 1971, Washington, D.C., U.S. Government Printing Office.
2. Hueper, W.C. *Occupational and Environmental Cancers of the Urinary System*, Yale Univ. Press, New Haven, 1969.
3. Scott, T.S. *Carcinogenic and Chronic Toxic Hazards of Aromatic Amines*, Elsevier, Amsterdam, 1962.
4. Deichmann, W.B., Lampe, K.F. *Bladder Cancer: A Symposium Held at the Fifth Inter-American Conference on Toxicology and Occupational Medicine*, Aesculapius Pub. Co., Birmingham, 1967.
5. Zavan, M.R., Hoegg, U., Bingham, E. Benzidine as a Cause of Bladder Tumors. *Arch. Env. Health* 27:1, 1973.
6. Hoover, R. and Cole, P. Temporal Aspects of Occupational Bladder Carcinogenesis. *NEJM* 288:1040, 1973.
7. Temkin, I.S. The Clinical Prophylaxis of the Urinary Bladder Cancers in the Workers of the Aniline Dyeing Industry. *Acta Univ.* 19:465, 1963 (quoted in Hueper, Ref. 2).
8. Cole, P., Hoover, R., and Friedell, G.H. Occupation and Cancer of the Lower Urinary Tract. *Cancer* 29: 1250, 1972.



MEDICAL PROGRESS



The Prophylaxis of Infection Following Operative Procedures†

HIRAM C. POLK, JR., M.D.

SINCE the time of Semmelweis and perhaps long before that, it has been the goal of individuals involved in care of wounds—whether inflicted with the benefit and expertise of anesthetists or without—to control infection in such wounds. At times, it has seemed a never attainable mirage; at other times control has appeared to be nearly at hand. The mechanism by which this millennium was to be achieved has varied from the time of Lister to the present. The purpose of this review is to put in proper perspective the opportunity to prevent infection following operative procedures by the judicious and timely use of conventional antibiotics.

The initial studies in this area put the whole concept in an unfortunate perspective. The studies were largely retrospective and almost never randomized. Antibiotics were generally begun postoperatively and inevitably, in many of the studies, the patients clinically selected for antimicrobial therapy were those who, according to other criteria, were generally sicker than those from whom antibiotics were withheld. One may summarize a 20-year period of investigation by saying that the results were peculiarly equivocal. As many studies failed to confirm the usefulness of antibiotics as did those finding in favor of antibiotic therapy as a method for reducing the rate of infection. Indeed, it was not rare for such a lengthy study to conclude that the rate of infection in the patients treated with antibiotics was higher than in the untreated group. Thus, one certainly

could draw the conclusion, based upon studies accomplished and reported by 1965, that antibiotics had little, if any, place in the prevention of the clinical wound sepsis.

However, laboratory studies were rather startlingly contrary to the clinical studies. Virtually every investigative report showed that infection caused by sensitive organisms was regularly aborted when antibiotics were given to animals before or concomitant with the test microbes.

The keystones of this observation are the experiments which Miles, Miles, and Burke conducted some years ago.¹ They showed rather conclusively that antibiotics given before or simultaneously with a local bacterial challenge (with bacteria sensitive to the antibiotic in question) were highly effective; indeed, appropriately timed antibiotics proved almost as effective as if the organisms per se had been autoclaved. In parallel, these investigators found that antibiotics given as late as four hours *after* the microbes had been inoculated were essentially worthless, producing lesions similar to those in untreated animals. Based upon these studies, one could infer that a clinically significant degree of protection could be anticipated if antibiotics were administered before or simultaneously with the bacterial challenge. Indeed, between the simultaneous administration and the totally ineffective period of therapy beginning four hours after bacterial inoculation, there is a rather straight-line relationship indicating a decreasing effectiveness of antibiotic therapy with passing time as one goes through one, two, and three hours after bacterial inoculation (Table 1). From these studies, one would hypothesize

†From the Department of Surgery, University of Louisville School of Medicine, and the Price Institute of Surgical Research, Health Sciences Center, Louisville, Kentucky 40201

Table 1

THE CONCEPT OF THE DECISIVE PERIOD
Size of Infective Lesion (mm)

Antibiotic begun hours post bacterial challenge	<div> <div></div> <div>-2</div> <div>0*</div> <div>1</div> <div>2</div> <div>3</div> <div>4 - 6</div> </div>						
Autoclaved bacteria	2	3	2	2	3	2	3
Bacteria + antibiotic	3	4	6	7	8	11	11
Bacteria without antibiotic	10	9	11	10	9	10	11

*Simultaneous

that a proper clinical study would require that antibiotics be given preoperatively if one is to achieve any degree of control.

Criteria for Preventive Treatment

The criteria for the prophylaxis of surgical infection are multiple (Table 2). First, one must identify that the patient in question bears a genuine enhanced risk of acquiring an infection after the procedure in question; this enhanced risk may reflect either the frequency of infection or its severity or be a function of both. As an example, infection frequently follows operations on the colon and is a source of substantial morbidity that very seldom leads to death. Conversely, following open-heart replacement of the aortic valve with a prosthetic device, infection occurs very seldom, but when it does is frequently associated with death attributable to that infection. Apparently, either situation represents a high-risk state—the one manifesting high risk in terms of frequency and the other in terms of severity. Surely this question must be answered intelligently before one considers prophylaxis. For example, infection after inguinal herniorrhaphy occurs so seldom as to *not exceed* the likelihood of an adverse reaction from virtually any antibiotic known to man. In other words, in that situation the risk of infection is so low that the chosen preventive technic bears a risk greater than that of the disease to be prevented.

One must also establish predictability for proper prophylaxis. Predictability involves a moment at which contamination is likely to occur so that one can take advantage of the foregoing observations and be certain that antibiotic therapy is initiated before contact with infecting microbes. Secondly, one should have

an understanding and appreciation of the **likely** organisms in any given institution and for any given operation so that an appropriate selection of antimicrobial agents is feasible. Finally, the preventive method selected must be practical and its risk rate must be sufficiently low to be acceptable when the clinician applies his inevitable evaluation of risk and rewards.

Modern Clinical Studies

Perhaps the first well-designed study of an effort to prevent surgical infection based on prophylactically administered antibiotics was that of Bernard and Cole.² In their investigation, antibiotics of three different types, including very broad spectrum antibiotics, were administered preoperatively and for five days postoperatively to a series of patients undergoing so-called potentially contaminated operations on the gastrointestinal and biliary tracts. Bernard and Cole's study² fell onto several unsuspected complications. The first involved a lack of sufficient control of the patients in question so as to be certain that the protocol was followed and, most specifically, that other antibiotic therapy was avoided. The authors' conclusions were slightly in favor of those patients treated with antibiotics but not to a striking degree.

Subsequent to that time a paper appeared from the general surgical services at Bellevue Hospital which found no protection in antibiotic-treated patients. Again the patients received the antibiotics preoperatively and for a variable period of time postoperatively. The most striking flaw in this study was the comparison of patients undergoing operations with greatly variable rates of infection in both the treated and placebo groups, but to a strikingly different degree. For example, patients undergoing inguinal herniorrhaphy were compared

Table 2

CRITERIA FOR PROPHYLAXIS

Establish high risk state
Frequency
Severity
Predictability
Timing
Organisms
Preventive technic
Practical
Low risk

with patients undergoing colostomy closures; patients undergoing biliary tract operations were compared with patients undergoing revascularization of ischemic extremities.

In an effort to correct the deficiencies of these studies, a prospective randomized evaluation was undertaken with the following characteristics.⁴ Only elective operations on the esophagus, stomach, small bowel, and colon were studied. Consecutive patients on a ward service under the direction of the senior author were studied. All other antimicrobial therapy was withheld, and all patients underwent a careful series of pre-, intra- and postoperative bacteriologic studies designed to determine carrier state and other variables which have been alleged to influence rates of infection. Either an active antibiotic (1 g cephaloridine) or placebo was given preoperatively on call to the operating room; two additional doses were given postoperatively at six-hour intervals. This particular study showed a striking degree of protection for the antibiotic-treated patients. The difference was maintained when one excluded the few patients in whom any error in the protocol occurred and any subdivision of the study examined in detail, such as gastro-duodenal operations as opposed to colonic operations. Since that time, an additional 600-odd patients were studied consecutively on the same service with a maintenance of the wound infection rate in the treated patients at 7%, a level which had been achieved in the initial study. This is perhaps notable because it represented the continuing usage of a single antibiotic on a single ward of a large general hospital for five years without change in degree of effectiveness against bacteria which were resident flora in that facility. More than a testimonial to the efficacy of the agent, this finding reflects the benefits of the extremely short dosage plan employed in the study.⁵ Such brief usage does not allow time or opportunity for the development of resistant forms to colonize either other patients or the inanimate objects on the ward in question.

Since moving to the University of Louisville and the Louisville General Hospital, this same protocol has been practiced under the author's supervision on nearly 200 consecutive patients. Our data in a new institution with similar patient populations indicate that the 6 to 8%

wound infection rate for potentially contaminated alimentary tract operations has been maintained. It should be underlined that the patients undergoing such operations receive no other antimicrobial therapy during the period of the study and, most specifically, so-called antimicrobial "bowel preparations" were not employed in any colon operation.

Some related observations have since been made which may expand the realm of documented verification of prophylaxis. The first of these is the report of Ledger and associates who found a similar agent and dose regimen useful in controlling pelvic cellulitis and pelvic abscess formation in younger women undergoing vaginal hysterectomy.⁶ The documentation of risk group here was rather carefully done, and the assessment of the efficacy of the drug both in terms of "degree days of fever" and of actual drainable pus is impressive.

For some years Altemeier has editorially and philosophically espoused the usefulness of preoperative therapy, and recently he and Fullen and colleagues made a very interesting report on a series of patients undergoing surgical treatment of penetrating wounds of the gastrointestinal tract.⁷ This study was non-randomized and retrospective but showed a striking degree of protection for patients with penetrating wounds of the abdomen in whom antibiotic therapy was begun preoperatively, i.e., in the emergency room on admission to hospital. Although mortality rates were unchanged, morbidity attributable to infection was strikingly reduced in those patients in whom antibiotic therapy was initiated very early. These observations may be construed as contrary to the "decisive period" concept of Miles, Miles, and Burke; indeed, antibiotic therapy here begins *after* the time of bacterial contamination. However, one may study their patients or our own and find that patients with penetrating abdominal trauma seek hospital care very promptly; virtually all of them have reached the emergency room less than an hour after infliction of the wound. They are presenting themselves for care in a period when antibiotic therapy, if initiated early in their emergency room evaluation, is more effective than no treatment. Clearly one may draw a distinction between these patients and those

who have a perforated duodenal ulcer or a sigmoid diverticulum 12 or more hours before systemic antibiotic therapy. Here, the antibiotic alters the frequency of sepsis very little.

The careful reader will note that the author has avoided discussing biliary tract operations because of their diversity in terms of predictability of infection. The patient undergoing an elective cholecystectomy for a solitary stone in a functioning "blue" gallbladder has a very low frequency of infection. The patient undergoing cholecystectomy for a sub-acutely inflamed gallbladder, which may or may not require common duct exploration, has an infection risk of much greater magnitude. Because we could not define these groups sufficiently preoperatively, we chose to omit them from our study.

Chetlin and Elliott have recently dealt with this difficult clinical problem in a very thoughtful way.⁸ Using previous studies of biliary tract bacteriology, they identified four high-risk groups (Table 3). Once these high-risk individuals were identified, they applied the same drug protocol which we had found useful (preoperative cephaloridine 1 g IM followed by two postoperative doses) and discovered a striking degree of protection in a randomized study of placebo- and antibiotic-treated patients. Such a finding would appear to indicate that antibiotic therapy is useful in patients who represent *genuine high risks* for infection in biliary tract surgery, but their study is clouded by the fact that the substantial difference between the groups fell into a category of "likely sepsis", manifested by fever without drainable pus. This is a less objective characteristic, but the differences between the antibiotic-treated and placebo-treated patient groups were most notable.

Discussion

In the foregoing modern perspective studies, genuinely high-risk groups appear to receive a substantial benefit from preoperative antimicrobial prophylaxis. The very brief dosage period found effective in many of these studies is significant. Indeed, we have no data to suggest that one might not accomplish just as much good with a single preoperative dose of the antibiotic agent. The postoperative duration of some 18 hours of antibiotic coverage

Table 3

High Risk Patients — Biliary Tract Operations

1. Patients over 70 Years of Age
2. Patients with Acute Cholecystitis
3. Patients with Obstructive Jaundice
4. Choledocholithiasis Without Jaundice

were based on animal experiments performed by the author of a related area, but experiments which have a very tenuous relationship to the clinical situation.⁹ Clearly, no more than three doses are necessary, and the addition of antibiotic therapy for two, three, or even five days only serves to cloud the situation in terms of clinical judgment of subsequent infections. Furthermore, such long-term therapy with broad-spectrum agents does indeed promote the emergence of resistant forms, as is now rather clearly appreciated.

Two areas—cardiovascular surgery particularly that involving prostheses, and pulmonary surgery involving transection of contaminated tissue such as the bronchus—would be worthy of study. Although it seems antibiotics are likely to be effective therein, none of the studies have been so appropriately controlled as to lead one to firm conclusions in these fields.

One can certainly question whether local administration of antibiotics in the wound might be as effective as systemic therapy. Laboratory experiments some years ago by Waterman at the University of Louisville showed a rather clear effect of topical antibiotics in laboratory wounds when the infective organisms were sensitive to the agent in question.¹⁰ Indeed, a number of clinical studies tend to confirm this, perhaps the most extensive being that of Stone and Hester.¹¹ Dealing with *emergency laparotomy in contaminated patients*, they found a high rate of infection (49%) in patients whose wounds were sutured primarily. This wound infection rate could be cut by two-thirds if delayed primary closure, the method introduced to civilian practice by Collier and Valk¹², was employed. Subsequently, the investigators found that one might take similarly contaminated wounds, spray them thoroughly with an antibiotic mixture (Neosporin) and achieve primary closure with a wound infection rate no higher than if the wound had been left open for delayed primary closure. These observations are impressive. The author continues to

think that there are benefits related to suffusing both intra-abdominal and other tissues with antibiotics for the brief period in question, but the advocates of local treatment of wounds for the control of infection have much laboratory and clinical data to support their stand.

Finally, a review of the prevention of operative wound infection would be incomplete without considering new technics, particularly regarding the control of airborne infection. Today, airborne infection in most modern operating rooms is a small contributor to surgical sepsis. However, for certain kinds of operations, airborne bacteria represent a substantial proportion of all which contaminate wounds. Examples include patients undergoing open-heart replacement of cardiac valves, hip prosthesis, including total hip replacement, and craniotomy. These refined clean procedures in which no contaminated viscus is transected would lend themselves to the control of infection by mechanical devices.

A committee of the American College of Surgeons has issued an opinion that, as of this moment, laminar flow devices are of unproved value in the control of infection. Although the author participated in this decision and concurs with it for the moment, it may be useful to reconsider a related experience with ultraviolet light. Present reports of efficacy from orthopedic centers are as yet entirely testimonial and unsupported by meaningful data. Some years ago, the surgical services at Duke University found a very favorable effect of ultraviolet light in its ability to control infection in the operating rooms in that particular institution.¹³ Subsequently, the National Research Council undertook an extensive, multiple hospital study which was published as a supplement to the *Annals of Surgery*.¹⁴ This study concluded that ultraviolet light was of no benefit. Since then, Hart¹⁵ and the neurosurgical group at Massachusetts General Hospital¹⁶ have restudied their experience, confining their review to patients undergoing refined, clean operations (e.g., craniotomy), and have found statistically significant decreases in wound infection rates in the presence of ultraviolet light

administration in the wound. This experience may indicate that when one studies laminar flow devices on the most appropriate patient population they may be more useful than is apparent at the present time.

Summary

The prophylaxis of surgical infection has been a dream of all physicians for a long time. Present application depends upon truly careful assessment of the degree of risk for the patient involved, a most judicious selection of agents used for control of infection, and the certainty that those agents are used in a setting and in a manner designed to maximize their efficacy and to minimize their adverse effects.

References

1. Miles, A. A., Miles, E. M., and Burke, J.: The Value and Duration of Defense Reactions of the Skin to the Primary Lodgement of Bacteria. *Brit. J. Exper. Path.* 38:79, 1957.
2. Bernard, H. R., and Cole, W. R.: The Prophylaxis of Surgical Infection: The Effect of Prophylactic Antimicrobial Drugs on the Incidence of Infection Following Potentially Contaminated Operations. *Surgery* 56:151, 1964.
3. Karl, R. C., Mertz, J. J., Veith, F. J., and Dineen, P.: Prophylactic Antimicrobial Drugs in Surgery. *NEJM* 275:305, 1966.
4. Polk, H. C., Jr., and Lopez-Mayor, J. F.: Postoperative Wound Infection: A Prospective Study of Determinant Factors and Prevention. *Surgery* 66:97, 1969.
5. Polk, H. C., Jr.: Postoperative Wound Infection. Prediction of Some Responsible Organisms. *Amer. J. Surg.* 126:592, 1973.
6. Ledger, W. J., Sweet, R. L., and Headington, J. T.: The Prophylactic Use of Cephaloridine in the Prevention of Pelvic Infections in Premenopausal Women Undergoing Vaginal Hysterectomy. *Amer. J. Obstet. Gynec.* 115:766, 1973.
7. Altemeier, W. A., Culbertson, W. R., Fullen, W. D., and McDonough, J. J.: *Serratia Marcescens* Septicemia: A New Threat in Surgery. *Arch. Surg.* 99:232, 1969.
8. Chedin, S. H., and Elliott, D. W.: Preoperative Antibiotics in Biliary Surgery. *Arch. Surg.* 107:319, 1973.
9. Polk, H. C., Jr., and Miles, A. A.: The Decisive Period in the Primary Infection of Muscle by *Escherichia coli*. *Brit. J. Exper. Path.* 54:99, 1973.
10. Waterman, N. G., Howell, R. S., and Babich, M.: The Effect of a Prophylactic Topical Antibiotic (Cephalothin) on the Incidence of Wound Infection. *Arch. Surg.* 97:365, 1968.
11. Stone, H. H., and Hester, T. R., Jr.: Incisional and Peritoneal Infection After Emergency Celiotomy. *Ann. Surg.* 177: 669, 1973.
12. Collier, F. A., and Valk, W. L.: Delayed Primary Closure of Contaminated Wounds. *Ann. Surg.* 112:256, 1940.
13. Hart, D.: Bactericidal Ultraviolet Radiation in the Operating Room. Twenty-nine-year Study for Control of Infections. *JAMA* 172:1019, 1960.
14. Postoperative Wound Infection: The Influence of Ultraviolet Irradiation of the Operating Room and of Various Other Factors (National Research Council Study). *Ann. Surg. (Suppl.)* 160:1, 1964.
15. Hart, D.: Postoperative Wound Infections: A Further Report on Ultraviolet Irradiation with Comments on the Recent (1964) NRC Cooperative Study Report. *Ann. Surg.* 167:728, 1968.
16. Wright, R. L., and Burke, J. F.: Effect of Ultraviolet Radiation on Postoperative Neurosurgical Sepsis. *J. Neurosurg.* 31:533, 1969.



GRAND ROUNDS



The University of Kentucky College of Medicine

This Journal feature will be presented alternately by the University of Louisville and the University of Kentucky Departments of Medicine and Departments of Surgery. We hope to have these features revolve around subjects of immediate practical interest to the practicing physician; and, for those of us not able to attend grand rounds in the teaching centers as often as we might, we hope this will represent a bit of a refresher course.

Cleft Lip and Palate

WHEREAS the definitive management of patients with cleft lips and cleft palates requires the effort and cooperation of professionals representing several disciplines, the initial recognition of the deformity and the early appropriate disposition of the afflicted neonate usually depends upon the family physician or pediatrician. Our experience in managing these patients has led us to recognize several problem areas faced by the primary physician. The ensuing discussion provides background material and a rationale for overall treatment planning while giving emphasis to those problem areas.

Attitudes toward cleft defects in other times and cultures have ranged in extremes from rejection and banishment to holy regard for the cleft-deformed child. In our society cleft anomalies are regarded as serious cosmetic and functional deformities which, however, are amenable to rehabilitation through a combination of modalities including surgery.

Pathology and Anatomy

The lip-palate complex is commonly described as consisting of two basic components, the primary palate (lip and premaxilla-alveolar ridge) and secondary palate (posterior hard palate and all of soft palate). The anatomical landmark which divides the two components is the incisive foramen (Fig. 1). The congenital defect may be unilateral or bilateral; it may be of any degree of severity ranging from a notch in the lip to a complete cleft involving the entire lip/palate complex (Fig. 2 and 3).

Clefts occur with a frequency of about one per 750 live births. The most frequent deformity is a unilateral complete cleft lip and palate

(35-40%), i.e., complete cleft of both the primary and the secondary palate (more common in males). The second most common defect is a complete cleft of the secondary palate without a cleft in the primary palate (25-30%); this defect is more common in females than in males. Cleft deformities are more common in whites than blacks (1.3/1000 vs 0.4/1000). Unilateral clefts are more common on the left than the right with a ratio of 3:2.

Associated anomalies include anencephalic, spina bifida, Apert's syndrome, hydrocephalus, club foot, micrognathia and various cardiac abnormalities.

The familial tendency for cleft deformities can be summarized as follows:

- (a) Existing cleft deformity in one sibling or parent gives 1:25 chance of another cleft
- (b) Existing cleft deformity in two siblings gives 1:10 chance of another cleft
- (c) Existing cleft deformity in one sibling and parent gives 1:5 chance of another cleft.

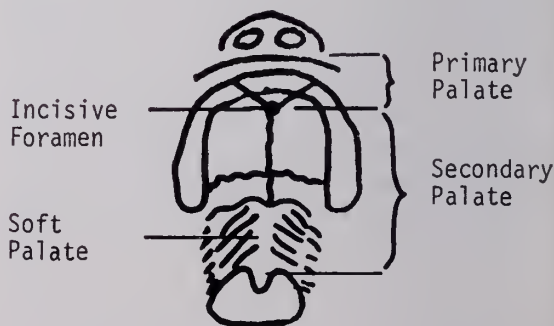


FIG 1 Diagrammatic representation of palate anatomy.



FIG 2 Incomplete cleft of lip plus notch in alveolar ridge (Primary palate).

Initial Management

Frequent questions arise as to the urgency for treatment of a newborn infant with a cleft deformity. The routine measures to stabilize the newborn should be carried out with some special attention to the airway and accurate and complete determination of the defect. This is done by inspection of the lip and palate as well as insertion of a finger into the mouth for the detection of submucous palatal clefts. One should also look for the presence of hypoplastic mandible and glossoptosis (Pierre Robin syndrome), central nervous system anomalies, and cardiac abnormalities.

The information yielded by this complete evaluation then allows the physician to discuss the problem with the parents and to put into proper perspective the implications of the defect with respect to the total health of the infant.

Such a thorough evaluation and the resulting appreciation of the infant's basic underlying good health may also forestall an unnecessary urgent transfer of the infant to another hospital

away from the mother. However, there are circumstances in which either associated anomalies or insurmountable feeding difficulties may require early transfer.

In an infant with no abnormalities other than a cleft lip or palate, little special nursing care is necessary. The major nursing problem of feeding the infant can be accomplished in a variety of ways, the final choice lying with the simplest effective method. The three common means of feeding cleft palate babies are: (1) bottle fitted with a large soft nipple; the hole may be enlarged; (2) asepto syringe with a small soft rubber tubing attached to allow the feeding to be placed on the back of the tongue in small amounts; (3) nasogastric tube feeding to be utilized only if the other modalities will not work. Additionally, these infants require frequent bubbling for the large amount of air that is swallowed. An infant who cannot be fed by one of these means should be suspected of having a significant underlying central nervous system or cardiac anomaly.

If the mother learns one of these feeding

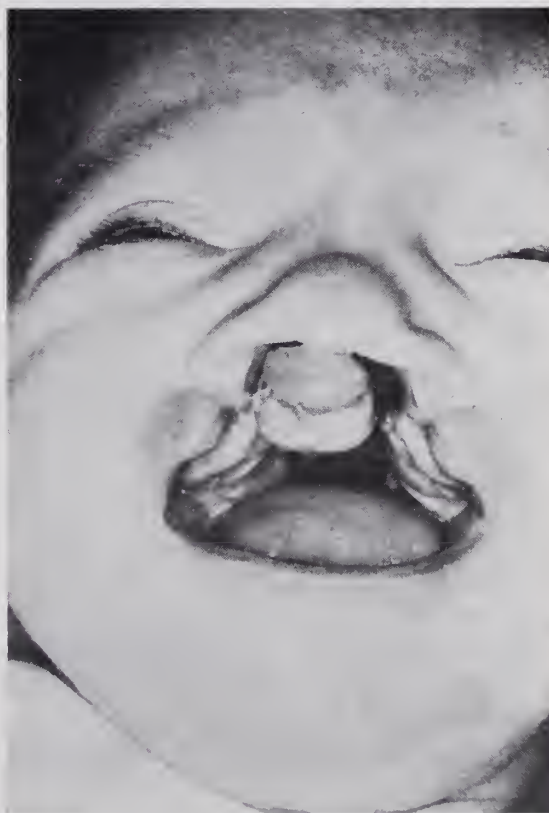


FIG 3 Complete bilateral cleft of lip and palate (Primary plus secondary palate).

techniques in the first few days, she is more likely to accept the child with his correctable defect and has little time to reflect on her misfortune.

Surgical Therapy

Consultation with the parents in the first few weeks is desirable so that they may be counselled with regard to the child's future rehabilitation.

Early evaluation is particularly useful in patients with cleft palates in order to ascertain the need for a dental prosthesis. Such an expansion appliance (Fig 4) is often vital preoperatively in correcting midfacial collapse or protruding premaxilla. The realignment of underlying skeletal structures not only facilitates the lip repair, but also maintains the dental arch in proper relationship during early growth and development.



FIG 4 Expansion appliance which is stapled to hard palate and expanded by turning of central jack-screw.

A common timetable for repairs is: (a) lip at 10-12 weeks; (b) palate 12-18 months; and (c) posterior pharyngeal flap as needed at age 5-12 years.

The initial surgery is usually not undertaken until the child has demonstrated a normal growth curve, stable hemoglobin, and attains an appropriate size that contributes to technical ease of the procedure (Fig 5 and 6). The usual parameter of "10's" (Hemoglobin 10 gm%, weight 10 pounds, age 10 weeks) is a time honored guideline.

Approximately 25% of children will have significant residual nasality as the result of velopharyngeal incompetence in spite of palate repair. This deficit usually requires speech



FIG 5 Intraoperative markings for cleft lip repair in three-month-old with complete unilateral cleft of lip and palate.

therapy, posterior pharyngeal flap reconstruction, prosthesis, or combination of these modalities in order to obtain optimal speech. Correction of the typical cleft lip nasal deformities is usually postponed until puberty so that the growth and development of nasal structures is not disturbed.

At the time of any operative procedures and at frequent intervals otoscopic examinations are essential; 75-90% of patients with cleft palates have serous otitis that may require myringotomy. The increased incidence of middle ear disease in cleft palate patients is thought to be related to the abnormal action of the tensor palati muscle which originates at the orifice of the Eustachian tube.

Cleft Palate Team

As the patient matures four major areas are monitored and treated as needed: (a) cosmetic deformities of the lip and nose; (b) dentition and occlusion; (c) speech; and (d) hearing.

In order to ensure that none of these areas is



FIG 6 Patient from Fig 5 two months postoperative.

overlooked, the patients are reviewed at a monthly Cleft Palate Clinic. The patients and families are seen by the surgeon, pedodontist, orthodontist, speech therapist, and social worker. This approach provides an integrated and complete program of therapy for the long term rehabilitation of the cleft palate patient.

Summary

The early evaluation of cleft lip/palate patients and general management principles are reviewed. The utilization of a Cleft Palate Team is essential in the effective and economical rehabilitation of patients with these deformities.

W. M. BRYANT, M.D.

W. L. DOWDEN, M.D.

Watch for upcoming
Journals and "Communicator"
for details of

★ **1974 Emergency Health Care Seminar**
May 30-31

★ **1974 KMA Annual Meeting**
September 24-26

SPECIAL ARTICLES

Kentucky Medical Association Position Paper on Professional Standards Review Organizations

KMA House of Delegates Resolution on PSRO

WHEREAS, Public Law 92-603 stipulates the requirements for Professional Standards Review Organizations, and

WHEREAS, the Board of Trustees of the KMA on March 28, 1973, approved the concept of a single statewide Professional Standards Review Organization for Kentucky to be developed by the Kentucky Foundation for Medical Care, and

WHEREAS, a PSRO implementation plan was drafted and endorsed by many medical and health related organizations in the state, and

WHEREAS, on August 30, 1973, at a PSRO area designation hearing conducted by the Department of Health, Education, and Welfare, all organizations represented again endorsed the KFMC proposal, therefore be it

RESOLVED, that the House of Delegates support the concept of a single statewide PSRO for Kentucky as indicated in the KFMC implementation plan and confirm the position taken by the KMA Board of Trustees in this regard, and be it further

RESOLVED, that the KFMC may enter into a provisional contractual agreement to serve PSRO purposes if no substantial changes are made in the plans submitted by the Kentucky Foundation for Medical Care to HEW, and be it further

RESOLVED, that if major changes occur, the new plan be approved by the House of Delegates at a regular or, if necessary, special called meeting, and be it further

RESOLVED, that this House of Delegates, as individual physicians and through its Public Relations Committee and the Committee on Legislative Activities of KMA, work to inform the public and legislators as to the potential deleterious effects of this law on the quality, confidentiality, and cost of medical care, and be it further

RESOLVED, that this House of Delegates request and petition the Kentucky Congressional delegation and every member of both Houses of the U.S. Congress and the Kentucky Legislature to work for the repeal of PSRO and a copy of this resolution be forwarded to these legislative bodies, and be it further

RESOLVED, that this House of Delegates instruct its Delegates to the American Medical Association to introduce a similar resolution in that House.

On October 31, 1973, the KMA Executive Committee met to implement actions of the House of Delegates. The above resolution was a major item of business and the Executive Committee directed that copies of the resolution with an accompanying letter

be immediately sent to all members of the United States Congress and the Kentucky General Assembly. This was accomplished during the 1973 calendar year and other PSRO actions were appropriately referred.

The Executive Committee recognized that com-

plete implementation of this resolution must be an ongoing process and must be coupled with a continuous exercise of information gathering and dissemination, and interpretation of KMA's PSRO activities with regard to changing developments.

By means of ten recent articles in the *KMA Journal*, nine Trustee District meetings devoted to the topic during 1973, and through other seminars, attempts have been made to advise the membership on PSRO. Thorough PSRO discussions and policy con-

siderations have taken place during ten meetings of the KMA Board of Trustees and KFMC Board of Directors, and KMA officials have attempted to become as knowledgeable of PSRO as possible through reading, attending local, state, and national meetings, and by conducting special sessions with allied groups and governmental agency representatives.

As part of this information process the Executive Committee finalized the following position paper on February 21 and directed its publication in the *KMA Journal* for the benefit of the membership.

* * * * *

Introduction

The Social Security Amendments Act of 1972, Public Law 92-603, was enacted by the U.S. Congress in October, 1972. This law contains requirements for Professional Standards Review Organizations.

Professional Standards Review Organizations (PSRO's) are to be established by professional associations of doctors of medicine and osteopathy within designated geographical areas and are to review all services provided to recipients of the Title XVIII (Medicare) and Title XIX (Medicaid) programs. Review of such services is to be undertaken to determine whether the services rendered were medically necessary, if the quality of the services met professionally recognized standards, and to determine if care provided in a hospital or other health care facility on an in-patient basis could have been administered on an out-patient basis or more economically in a facility of a different type.

Preceding enactment of this law, the American Medical Association on behalf of organized medicine opposed similar proposed legislation. Section 249f (the actual PSRO portion) of the law constitutes a compromise between various earlier suggestions by Senator Wallace Bennett (R-Utah) and the Department of Health, Education, and Welfare. The essential component that AMA fought for, and ultimately achieved, with respect to this legislation is that medical care review be placed in the hands of practicing physicians rather than federal review teams.

Since the enactment of this law, the Kentucky Medical Association and its subsidiary, the Kentucky Foundation for Medical Care, have devoted much activity to studying PSRO requirements, and developing a suggested implementation plan for Kentucky. The culmination of these efforts was reflected in the actions

of the 1973 KMA House of Delegates which passed a PSRO resolution that was a composite of several resolutions and reports. The final resolution directs the organization (KMA-KFMC) to conduct PSRO in the state and to work for the repeal of the law.

This position paper has been prepared, therefore, to serve to clarify the position of the Association with regard to PSRO and to interpret and analyze directed implementing actions.

PSRO Legislative History

In late 1969, the federal administration initiated legislation which would require the review of the quality and quantity of services provided under Medicare. As hearings and review progressed, the Senate Finance Committee expressed interest in Medicare and Medicaid review by physicians and medical societies.

In August, 1970, Senator Bennett first introduced the concept of Professional Standards Review as Amendment 851 to H.R. 17550. This bill was passed by the Senate but because House of Representatives and Senate versions of the bill differed, it died because those differences could not be resolved before the adjournment of the 91st Congress.

In early 1972, hearings were resumed on the legislation and Senator Bennett reintroduced his PSRO amendment. In October, 1972, a joint conference committee of the House and Senate finally agreed on all parts of H.R. 1 which contained the PSRO provision and on October 30, 1972, Public Law 92-603 was signed.

Activities of Record

During the legislative process, the PSRO requirement was closely followed, and after becoming law, the Kentucky Foundation for Med-

ical Care began a detailed study of the new review requirement and considered the feasibility of the Foundation acting as an implementing agency for PSRO in Kentucky. Between November, 1972, and March, 1973, the various Foundation committees were assigned PSRO study areas related to their routine activities. Committee research on various parts of PSRO were to be used in considering implementation feasibility.

An interim report of the KFMC studies was presented to the KMA Board of Trustees in December, 1972, and was accepted for information. In the same month, the KFMC Board of Directors directed that work be initiated on drafting a PSRO implementation plan for the state based on earlier research of the law.

During the period between February and March, 1973, as implementation studies were being undertaken, contacts were made with allied health groups to ascertain their opinions and desires with regard to PSRO.

At the meeting of the KMA Board of Trustees on March 28, 1973, the President of the Foundation reported that studies and contacts with allied groups suggested that the KMA-KFMC should request designation as the PSRO for the state of Kentucky utilizing a statewide review system concept based on past review experience. At this meeting, the KMA Board voted approval for the KFMC to act as the PSRO for the state and sought formal recognition and support for this concept from the state Comprehensive Health Planning Council and other health groups.

In April, 1973, a final suggested draft for PSRO implementation was completed and sent to the members of the KMA Board of Trustees, the KFMC Board of Directors, and representatives of health organizations concerned with or likely to be associated with PSRO.

On May 16, 1973, in open forum, members of the KMA Board, KFMC Board, and representatives of associated allied health organizations discussed the drafted implementation plan and considered modifications. Modifications to the PSRO proposal were then made and the revised plan resubmitted to KMA and KFMC Board members and others who attended the May 16 meeting.

Association officials met with HEW representatives on May 23, 1973, to discuss PSRO operations in Kentucky with particular

emphasis on the designation of the state as a single area.

On August 30, 1973, at a hearing conducted by the Atlanta office of the Department of Health, Education, and Welfare to determine opinions on area designations, all hearing attendees supported the plan authored by the KFMC as well as the single statewide PSRO concept. No other implementation or area designation proposals were suggested at this meeting. At that time, HEW officials advised that final PSRO determinations for Kentucky would be based on the outcome of the hearing.

1973 KMA Annual Meeting

Two reports and four separate resolutions on PSRO were submitted to the 1973 KMA House of Delegates. Reports were submitted by the Chairman of the KMA Board of Trustees and by the Kentucky Foundation for Medical Care. Resolutions submitted were G, I, L, and N.

The reports essentially described the PSRO activities of KMA and KFMC and were accepted for information.

Resolution G called on the House to accept responsibility to implement the PSRO law, for physicians to continue to provide the best care possible under it, to educate the public and legislators of the potential deleterious effects of the law, and to work for its repeal.

Resolution I called on KMA to declare PSRO ill-conceived and dangerous.

Resolution L supported the KFMC-PSRO proposal and called on the Association to work for PSRO repeal.

Resolution N supported the statewide PSRO concept and implementation plan submitted by the Foundation, directed the KFMC to enter into contractual agreements with HEW to perform PSRO, and called on KMA to pursue appropriate amendments to the law to preserve high quality care.

Record length discussions were held during the reference committee meeting and the Committee Chairman did not limit debate.

During the last session of the 1973 House of Delegates the reference committee offered a substitute resolution based on discussions held. The substitute resolution called on the House to support the concept of a single statewide PSRO for Kentucky as indicated in the KFMC implementation plan, called on the KFMC to enter into provisional contractual agreements to

serve PSRO purposes providing no substantial changes were made to the plan as submitted, directed that if major changes did occur, they be approved by the House of Delegates at a regular or special called meeting, asked that the House, as individual physicians and through the Public Relations and Legislative Activities Committees, to work to inform the public and legislators as to the potential deleterious effects of the law, and instructed KMA Delegates to the AMA to introduce a similar resolution to that House.

During House deliberations, a floor amendment was proposed, retracted, and repropounded which called on the House to request and petition state and U.S. legislators to work for the repeal of PSRO, and directed that a copy of the resolution be forwarded to state and federal legislative bodies. With this additional provision, the substitute resolution authored by the reference committee was passed.

Interpretation of Position

The final resolution passed by the 1973 KMA House of Delegates delineates four basic principles which are:

- I. *Support of the concept of a single statewide PSRO to be administered by the Kentucky Foundation for Medical Care based on its implementation plan and a confirmation of the position taken by the KMA Board of Trustees in this regard.*
- II. *That the Foundation enter into provisional contractual agreements with the Department of HEW based on the implementation plan submitted; substantial changes to this plan to be approved by the House of Delegates.*
- III. *That the public and legislators be informed of the potential deleterious effects of PSRO on the cost, quality, and confidentiality of medical care through the KMA Public Relations and Legislative Activities Committees and through the membership as individual physicians.*
- IV. *To work for repeal of the law through the Kentucky and United States legislative bodies.*

I. SUPPORT OF STATEWIDE CONCEPT

—Records of the 1973 Annual Meeting indicate overwhelming support for KMA-KFMC PSRO activities to date. From these records, it is apparent that KMA is committed to the concept of peer review, that the membership

supports KMA-KFMC operated review activities that are based on past experience, and that the Foundation's plan for PSRO operations does have wide support from associated organizations.

In developing the implementation proposal, many efforts were made to publicize PSRO activities as they occurred. When completed, the plan was made available as broadly as feasible. In the drafting stages, the implementation proposal was specifically oriented to assure physician control of review efforts and to restrict federal involvement in medical practice.

The plan relied on the use of the existing statewide peer review mechanism and called for the development of diagnostic criteria guidelines at the local level to insure local autonomy while providing central supervision through the KFMC. The major intent of the proposal was to comply with the law while imposing the least interference with proven effective medical care review and care delivery.

Through information published in the *KMA Journal* and that supplied at Trustee District meetings, every attempt was made to inform the membership on PSRO activities and the plan was periodically modified to make it more workable and acceptable to patient care modalities and the profession. The plan stressed Kentucky's uniqueness with regard to geography, population, and physician practice situations but offered a unique resolution to review efforts devoted to such a situation by means of the current review system. Final justification of support of this principle is the fact that a majority of interested or concerned related organizations granted formal support of the plan.

II. CONTRACTUAL AGREEMENTS—PSRO areas were designated on December 20 and Kentucky was announced as a single PSRO area. Contractual negotiation efforts by HEW should soon be forthcoming. The naming of Kentucky as a single PSRO area is seen as an indication of the general acceptance of Kentucky's peer review system and subsequent PSRO suggestions.

Contracting with HEW to perform PSRO does not necessarily mean that PSRO intent is supported but rather qualifies the intent of PSRO as interpreted by the Foundation.

Reliance on the KFMC to perform PSRO is mandatory if federal review requirements are to

be made workable in the best interest of Kentucky's patients and the future of medical care. The second principle is seen as a definite direction for the KFMC to proceed with the necessary steps to operate a PSRO in the state.

III. INFORMATION ON DELETERIOUS EFFECTS—In the final session of the House of Delegates during the Annual Meeting, discussions were held which sought to precisely define the deleterious effects mentioned in the resolution so that the public and legislators could be so informed. These efforts were not successful.

Poor effects proposed were that costs would not be noticeably reduced, that the confidentiality of the patient-physician relationship might be compromised because of the "public" atmosphere ascribed to Medicare statistics and that quality of medical care might suffer because physician independence might be restricted.

Although potential undesirable effects can be projected, they cannot be defined until such time as they occur. The interpretation of this principle is that advice should be given appropriately that the Association, as individual physicians, feels that the PSRO law will not serve the best interests of patient well-being and medical care delivery.

IV. WORK FOR REPEAL—Noting that Public Law 92-603 underwent over two years of hearings and debate before enactment, speakers at the 1973 Annual Meeting suggested that repeal efforts would not be politically viable in the current atmosphere. Therefore, if opportunities are presented to legislatively repeal this law, they should be pursued. A more pragmatic approach, as suggested in House testimony, is that amendments or modifications to the law that would make it acceptable to proven care delivery modalities should be pursued.

Analysis of Implementation Efforts

I. The first principle derived from the House resolution passed supports the single statewide PSRO concept to be administered by the KFMC and is self-explanatory, but supplies justification and support for implementation efforts of the second principle.

II. Implementation of the second principle, which calls for the KFMC to enter into contractual agreements with HEW is contingent on

two factors: (1) that the Department of HEW does, in fact, accept the implementation plan submitted and enters into contractual negotiations; and (2) the factor of any changes to be made to the plan.

It is anticipated that the KFMC will be designated, provisionally, as the PSRO for Kentucky as its implementation proposal was the only one submitted for the state. This view is supported by the announcement of Kentucky as a single statewide PSRO area as previously recommended by the Foundation. Careful attention was given in drafting the plan to comply with all evident portions of the original law. However, the plan was based on Kentucky being designated as a single PSRO area before the single area concept was accepted by HEW. Specifically, the plan includes a State PSRO Council and Lay Advisory Council which were not described in the law for single state areas. Because of these and other minor technicalities, the plan might not be completely acceptable to HEW. No changes to the plan are intended by the Foundation, but HEW may require modification for the reasons just mentioned. Substantial changes are not anticipated, but the composition of the state PSRO Board of Directors could well be one modification and others could be expected to surface.

The direction to convene a meeting of the House of Delegates if changes to the plan occur is interpreted to mean substantial philosophical changes made either by KFMC or HEW.

III. Analysis of implementation of this principle is that full implementation is not possible at this time. Discussions during the Annual Meeting brought out that specific deleterious effects could not presently be defined and that any broad publicity effort would be cost-prohibitive. To describe and explain PSRO and to further describe the feelings of the profession in a manner understandable to the public can reasonably be effected at this point only by means of contact with individual patients, until poor effects are defined.

IV. All state and U.S. legislators were contacted soon after the Annual Meeting concerning repeal of the PSRO law. The wishes of the Association were made known by sending each of them a copy of the resolution passed by the House of Delegates. Some deleterious projections can be made in the absence of the operation of PSRO but valid identification of poor

effects can only be documented retrospectively.

Some activity for repeal of PSRO at the federal level has been noted but the bulk of information available, and analysis of the current political atmosphere, predicts that full repeal efforts are very unlikely. Amendment or modification to the existing legislation is more probable. Additionally, the effecting of repeal through the state legislature is not feasible because the law was federally enacted and state legislators would be, obviously, unfamiliar with such intricate federal requirements.

Current Posture

From the resolution passed by the 1973 KMA House of Delegates and the interpretation of its intent, the current posture of this Association with regard to PSRO is as follows:

(1) The Kentucky Medical Association is opposed to federally mandated, bureaucratically controlled medical review with restrictive operational methods as indicated in Public Law 92-603 because of the potential undesirable effects of the PSRO program on patient care and affirmative medical practice.

(2) The Association is committed to professionally supervised, voluntary peer review.

(3) So long as PSRO is law, the Kentucky Foundation for Medical Care, on behalf of patient welfare and the profession, should seek to act as the operating agency and should contract with the Department of Health, Education, and Welfare to perform federal review in the state, thereby interjecting concepts of reasonable and workable medical care review. (Early demonstration projects would assist in finalizing any decisions prior to mandatory PSRO implementation scheduled for January 1, 1976.)

Future Alternatives

The preceding material substantiates the Association's resolution to two basic but dichotomous points: (1) to actively solicit PSRO organizational designation, and (2) to work for repeal efforts. The pursuit of appropriate amendments or modifications to the law is not considered a part of repeal efforts because the law's author and the federal administration would logically accept amendment of the law dictated by operational experience.

Kentucky has become recognized for its peer

review activities and based on that experience, the Department of Health, Education, and Welfare has commented favorably on its (the KFMC's) potential as an effective PSRO. If the Association commits its resources to full and vigorous PSRO operations, it is anticipated that full and able support will be received from federal agencies with little interference. Such cooperation would enhance the position of the Association with regard to control of PSRO and complete professional supervision. There would then exist an affirmative situation in that, as stipulated in the KFMC plan, the PSRO would be created but after its establishment, would become free-standing with the Association having major input.

If, however, the Association were to dedicate its main efforts to repeal of the law, and repeal efforts were to no avail, PSRO would be put into operation without Association input and supervision. All valid rationale for Association control and all past peer review efforts would then have served for nothing.

Simultaneous efforts to operate a PSRO and vigorously work for repeal would be counterproductive. Working at contemps in this manner would create a situation whereby the Association could expect less than full cooperation from the government and could devote less than full dedication to repeal efforts. Because repeal efforts are not considered politically viable, this would be an untenable and devious position. After January 1, 1976, HEW is not compelled to designate medical society sponsored organizations as PSRO's either legally or ethically.

Conclusion

Because PSRO in some form will remain in effect, the KMA-KFMC should exert maximal efforts to assume leadership and act in the role of the PSRO agency to assure program implementation does not detract from optimal medical care and is in the best interest of the patients of our state and the profession.

In light of the current political atmosphere, the Association should vigorously support amendments and modifications that would make federal review more workable, and continue researching the possibilities for repeal noting that clear identification of potential deleterious effects would add to repeal viability.

Kentucky MECO '74

PHIL AARON

“GREAT!!!” was the way one Kentucky physician described the 1973 Kentucky MECO program. Last summer MECO placed 67 medical students in the hospitals/clinics and private practices throughout Kentucky, establishing the Kentucky program as the most successful one in the nation. Kentucky had a gain of 62 students from 1972, ranking number one nationally in percentage of increase and achievement. The program also fared well in comparison with the other top states with MECO programs. Kentucky’s program had more positions available than Texas (41) and California (50).

Similar to an externship, MECO (Medical Education, Community Orientation) provides medical students the opportunity to spend eight to ten weeks during the summer learning about a community’s total health care system. MECO is flexible enough to allow the student to participate with the physician in developing an education program to fit the participating community. Emphasis is placed on exposing the student to the lifestyle of the community physician, to the function and operation of the community hospital, to the interaction of all facets of the community as related to health care, and on helping him to appreciate the basic concept of patient-oriented health care.

MECO also affords Kentucky’s practicing physicians the chance to give these students exposure to clinical medicine from the eyes of a practicing physician—an exposure often different from that gained in a medical center teaching hospital.

MECO’s goal is to encourage students to re-

turn to communities having physician shortages. Exposure of a student at an early point in his training, to a health care system of a community, makes the student more likely to consider establishing a practice in that community. Several of the 1973 MECO students who had never before considered practicing in rural Kentucky, are now making plans to return to their MECO communities again next summer and after they graduate.

Plans are currently underway for the implementation of MECO 1974. The emphasis is on quality this year, building upon the knowledge gained last summer.

Two new wrinkles/options are being considered for MECO '74: incorporation of the program into the medical school curriculum with students receiving elective credit for participation under the direction of the departments of family practice and community medicine, and plans for the development of a financial assistance option through which communities can loan money to finance a medical student’s (their MECO student’s) education—in return for a promise to return and practice in that community.

Any physician, hospital or clinic desiring to participate, or wanting more information should contact:

Kentucky MECO '74
1415 St. Anthony Place
Louisville, Kentucky 40202
or
Kentucky Medical Association
3532 Ephraim McDowell Drive
Louisville, Kentucky 40205



EDITORIALS



Health Planning

PATTERNS of medical care in America are changing rapidly, much more rapidly perhaps than most of us realize. We sometimes discuss the advent of PSRO, NHI, and HMO as if these governmentally sponsored acronyms represent the major threats to our status quo. While they are indeed significant in themselves, these programs really represent only the current waves in a much more basic and powerful upheaval, one destined to alter the framework of the present physician-patient relationship markedly. Such alteration has been underway for many years and will continue, with or without the stimulus of congressional action.

In centuries past the original one-on-one relationship between a sick person and his doctor was a simple and usually satisfactory one. The patient generally understood the doctor's limitations, anticipated the fees involved, and obtained medical care if he felt the value of the care to be rendered outweighed the economic liability thereby assumed. If he was poor and went without care, his outcome differed only slightly from his wealthier brethren, for until about 100 years ago medicine was much more art than science. Only in the last four or five generations has medicine had the growing knowledge and power to influence the course of many illnesses in a favorable way.

As medical practice and medical education progressed into the twentieth century, the ill-trained doctor gave way to a group of highly skilled physicians. The ancient *Krankenhaus* became a modern hospital, offering the medical scientist a facility loaded with the technologic apparatus he needed, his wonders to perform. And wonders there were (and are) aplenty. Asepsis, anesthesia, biochemistry, antibiotics, immunology, and chemotherapy, to name but a few, arose and were absorbed into the fabric of daily patient care. With the rise in importance of the hospital instead of the home as a

place to recover from illness, came a corollary and inevitable rise in costs.

Initially these increased costs were, as before, paid by the individuals involved. As medicine's track record improved immensely, however, it became less and less sensible for patients to omit or to cease treatment, (this had been the fiscal safeguard in the old days), and so some bills outstripped the capability of the individual to pay. At this point the pure one-on-one relationship disappeared, and the group-risk phenomenon known as insurance entered the scene.

Health insurance companies, notably Blue Cross-Blue Shield, have over the last 30 to 40 years spread the economic risk of major illness through large subscriber lists. This has enabled the patient to pay, albeit indirectly, for the high-calibre, high-cost care he has demanded.

The indirect nature of the payment has led as might be expected to a markedly increased rate of facility utilization—and to steadily rising premium rates and restrictions on services covered. Having hidden once from costs under the umbrella of insurance, the patient begins to find himself exposed again, and is now looking for help wherever it can be found. Some of that help will come from the federal government, it seems safe to say. This is not much of a news item, though, as already 50% of the 83 billions of health care dollars a year arise from that source.

Thus we're not facing a revolution in health care, we're in one. Can we, and our style of patient care, survive? Of course we can, if we understand the currents and counter-currents, the pressures, the needs. The one-to-one doctor-patient relationship must be preserved at the personal, therapeutic level, but in discussing the economics of health care we're now facing large institutions (insurance, government) and we need strong organizations of our own

to make our voices heard. We need to plan health care systems—not only negatively, to restrict costs, but positively, to meet needs. Urban, rural, ghetto areas—if gaps in care or costly duplications exist, who better than we to propose solutions we can live with?

Physicians, and practicing physicians in particular, alone have the knowledge to make workable changes in the field of health care. We must as organizations form plans for our

communities' care, just as we as individuals plan care for our individual patients. Uncontrolled usage and uncontrolled costs, as noted above, can crush our patients and crush us as well.

Health planning has been to date a disaster in many areas. If we as physicians recognize this need for leadership, health planning doesn't have to be bad news. It may well be a major opportunity.

WHj

Have You Moved Recently?

Please send any change of address to *The Journal of the Kentucky Medical Association*, 3532 Ephraim McDowell Drive, Louisville, Kentucky 40205. We need your help in keeping our mailing list up to date. You are our best source of information.

Notice To Contributors

Members of the Kentucky Medical Association reading papers before other organizations are asked to submit their papers to *The Journal* for consideration by the Editors for publication. Detailed instructions to contributors appear in the Scientific Section of *The Journal* under Manuscript Memos. Please forward any papers to:

Charles C. Smith, Jr., M.D., Scientific Editor
The Journal of the Kentucky Medical Association
3532 Ephraim McDowell Drive
Louisville, Kentucky 40205

Sign of a cold* sufferer

Time for Ornade®

Each Spansule® capsule contains 8 mg. Teldrin® (brand of chlorpheniramine maleate); 50 mg. phenylpropanolamine hydrochloride; 2.5 mg. isopropamide, as the iodide.

Fast relief of nasal congestion
and hypersecretion*
with convenient b.i.d. dosage.

Before prescribing, see complete prescribing information in SK&F literature or PDR. The following is a brief summary.

Indications

Based on a review of this drug by the National Academy of Sciences—National Research Council and/or other information, FDA has classified the indications as follows:

Possibly effective: For relief of upper respiratory tract congestion and hypersecretion associated with vasomotor rhinitis and allergic rhinitis, and for prolonged relief.

Lacking in substantial evidence of effectiveness: For relief of nasal congestion and hypersecretion associated with the common cold and sinusitis.

Final classification of the less-than-effective indications requires further investigation.

Contraindications: Hypersensitivity to any component; concurrent MAO inhibitor therapy; severe hypertension; bronchial asthma; coronary artery disease; stenosing peptic ulcer; pyloroduodenal or bladder neck obstruction. Children under 6.

Warnings: Caution patients about activities requiring alertness (e.g., operating vehicles or machinery). Warn patients of possible additive effects with alcohol and other CNS depressants.

Use in Pregnancy: In pregnancy, nursing mothers and women who might bear children, weigh potential benefits against hazards. Inhibition of lactation may occur.

Effect on PBI Determination and I¹³¹ Uptake: Isopropamide iodide may alter PBI test results and will suppress I¹³¹ uptake. Substitute thyroid tests unaffected by exogenous iodides.

Precautions: Use cautiously in persons with cardiovascular disease, glaucoma, prostatic hypertrophy, hyperthyroidism.

Adverse Reactions: Drowsiness, excessive dryness of nose, throat or mouth; nervousness; or insomnia. Also, nausea, vomiting, epigastric distress, constipation, diarrhea, rash, dizziness, weakness, chest tightness, angina pain, abdominal pain, irritability, palpitation, headache, incoordination, tremor, dysuria, difficulty in urination, thrombocytopenia, leukopenia, convulsions, hypertension, hypotension, anorexia, constipation, visual disturbances, iodine sensitivity (acne, parotitis).

Supplied: Bottles of 50 capsules.

SK&F Smith Kline & French Laboratories
Division of SmithKline Corporation, Philadelphia, Pa. 19101





The irritations of man's day are often reflected in his gut

The causes of irritable colon and the diarrheal symptoms that often accompany it can be as diverse as the systemic and emotional irritations man is faced with daily.

Although the mucoid nature of stools and the occurrence of diarrheal episodes coincident with times of emotional stress may be valuable clues to the functional nature of the disorder, irritable colon must often be diagnosed by exclusion. Such diagnostic exploration takes time. Discovery of the nature of any emotional problems may take more. During that time, Lomotel® is an ideal agent for controlling diarrheal symptoms.

Lomotel tablets are small, easy to carry and easy to take. They act promptly and effectively. Secondary effects are relatively infrequent and once the first force of the diarrhea is controlled, maintenance is frequently effective on as little as one fourth of the initial dosage.

These same characteristics make Lomotel useful in controlling the diarrhea associated with gastroenteritis, antibiotic therapy and acute infections.



Lomotil[®]

TABLETS/LIQUID

Each tablet and each 5 ml. of liquid contain:
diphenoxylate hydrochloride . . . 2.5 mg.
(Warning: May be habit forming)
atropine sulfate 0.025 mg.

**akes care of the gut issue
n irritable colon**

IMPORTANT INFORMATION: This is a Schedule V substance by Federal law; diphenoxylate HCl is chemically related to meperidine. In case of overdosage or individual hypersensitivity, reactions similar to those after meperidine or morphine overdosage may occur; treatment is similar to that for meperidine or morphine intoxication (prolonged and careful monitoring). Respiratory depression may recur in spite of an initial response to Nalline[®] (nalorphine HCl) or may be evidenced as late as 30 hours after ingestion. LOMOTIL IS NOT AN INNOCUOUS DRUG AND DOSAGE RECOMMENDATIONS SHOULD BE STRICTLY ADHERED TO, ESPECIALLY IN CHILDREN. THIS MEDICATION SHOULD BE KEPT OUT OF REACH OF CHILDREN.

Indications: Lomotil is effective as adjunctive therapy in the management of diarrhea.

Contraindications: In children less than 2 years, due to the decreased safety margin in younger age groups, and in patients who are jaundiced or hypersensitive to diphenoxylate HCl or atropine.

Warnings: Use with caution in young children, because of variable response, and with extreme caution in patients with cirrhosis and other advanced hepatic disease or abnormal liver function tests, because of possible hepatic coma. Diphenoxylate HCl may potentiate the action of barbiturates, tranquilizers and alcohol. In theory, the concurrent use with monoamine oxidase inhibitors could precipitate hypertensive crisis.

Usage in pregnancy: Weigh the potential benefits against possible risks before using during pregnancy, lactation or in women of childbearing age. Diphenoxylate HCl and atropine are secreted in the breast milk of nursing mothers.

Precautions: Addiction (dependency) to diphenoxylate HCl is theoretically possible at high dosage. Do not exceed recommended dosages. Administer with caution to patients receiving addicting drugs or known to be addiction prone or having a history of drug abuse. The subtherapeutic amount of atropine is added to discourage deliberate overdosage; strictly observe contraindications, warnings and precautions for atropine; use with caution in children since signs of atropinism may occur even with the recommended dosage.

Adverse reactions: Atropine effects include dryness of skin and mucous membranes, flushing and urinary retention. Other side effects with Lomotil include nausea, sedation, vomiting, swelling of the gums, abdominal discomfort, respiratory depression, numbness of the extremities, headache, dizziness, depression, malaise, drowsiness, coma, lethargy, anorexia, restlessness, euphoria, pruritus, angioneurotic edema, giant urticaria and paralytic ileus.

Dosage and administration: Lomotil is contraindicated in children less than 2 years old. Use only Lomotil liquid for children 2 to 12 years old. For ages 2 to 5 years, 4 ml. (2 mg.) t.i.d.; 5 to 8 years, 4 ml. (2 mg.) q.i.d.; 8 to 12 years, 4 ml. (2 mg.) 5 times daily; adults, two tablets (5 mg.) t.i.d. to two tablets (5 mg.) q.i.d. or two regular teaspoonfuls (10 ml., 5 mg.) q.i.d. Maintenance dosage may be as low as one fourth of the initial dosage. Make downward dosage adjustment as soon as initial symptoms are controlled.

Overdosage: Keep the medication out of the reach of children since accidental overdosage may cause severe, even fatal, respiratory depression. Signs of overdosage include flushing, lethargy or coma, hypotonic reflexes, nystagmus, pinpoint pupils, tachycardia and respiratory depression which may occur 12 to 30 hours after overdose. Evacuate stomach by lavage, establish a patent airway and, when necessary, assist respiration mechanically. Use a narcotic antagonist in severe respiratory depression. Observation should extend over at least 48 hours.

Dosage forms: Tablets, 2.5 mg. of diphenoxylate HCl with 0.025 mg. of atropine sulfate. Liquid, 2.5 mg. of diphenoxylate HCl and 0.025 mg. of atropine sulfate per 5 ml. A plastic dropper calibrated in increments of 1/2 ml. (total capacity, 2 ml.) accompanies each 2-oz. bottle of Lomotil liquid.

SEARLE Searle & Co.
San Juan, Puerto Rico 00936

Address medical inquiries to:
G. D. Searle & Co., Medical Department
Box 5110, Chicago, Illinois 60680

Integument!

Our skin—the human integument—covers us, defines us, protects us. But skin is subject to cuts, burns, abrasions. And infections. Neosporin Ointment fights infection by providing broad antibacterial action against susceptible skin invaders. It contains antibiotics that are rarely used systemically, reducing the risk of sensitization.

INDICATIONS: *Therapeutically*, used as an adjunct to appropriate systemic therapy for topical infections, primary or secondary, due to susceptible organisms, as in:

- infected burns, skin grafts, surgical incisions, otitis externa
- primary pyodermas (impetigo, ecthyma, sycosis vulgaris, paronychia)
- secondarily infected dermatoses (eczema, herpes, and seborrheic dermatitis)
- traumatic lesions, inflamed or suppurating as a result of bacterial infection.

Prophylactically, the ointment may be used to prevent bacterial contamination in burns, skin grafts, incisions, and other clean lesions. For abrasions, minor cuts and wounds accidentally incurred, its use may prevent the development of infection and permit wound healing.

CONTRAINDICATIONS: Not for use in the external ear canal if the eardrum is perforated. This product is contraindicated in those individuals who have shown hypersensitivity to any of the components.

PRECAUTION: As with other antibiotic preparations, prolonged use may result in overgrowth of nonsusceptible organisms and/or fungi. Appropriate measures should be taken if this occurs. Articles in the current medical literature indicate an increase in the prevalence of persons allergic to neomycin. The possibility of such a reaction should be borne in mind.

Complete literature available on request from Professional Services Dept. PML.

NEOSPORIN[®] Ointment

(POLYMYXIN B-BACITRACIN-NEOMYCIN)

Each gram contains: Aerosporin[®] brand Polymyxin B Su 5,000 units; zinc bacitracin 400 units; neomycin sulfate 5 (equivalent to 3.5 mg. neomycin base); special white petrolatum. In tubes of 1 oz. and ½ oz. and ¼ oz. (approx.) foil pack.



Wellcome

Burroughs Wellcome Co.
Research Triangle Park
North Carolina 27709



ORGANIZATION SECTION



HEW Withdraws Regulations Due to AMA Opposition

On February 7, HEW Secretary Caspar Weinberger withdrew proposed regulations which would have called for pre-admission certification for all Medicare and Medicaid hospital patients.

The withdrawal came two days after Secretary Weinberger and HEW Assistant Secretary for Health, Charles C. Edwards, M.D., met with AMA President Russell B. Roth, M.D., and other AMA officials.

Doctor Roth had announced at a January 25 news conference that AMA was prepared to take legal action against Secretary Weinberger if the regulations were implemented citing the HEW proposals as "wrong medically, wrong morally, and wrong legally."

In related action, AMA filed suit February 19 against the Cost of Living Council to overturn discriminatory Phase IV economic controls on physicians. In effect until April 30 are the following provisions of the latest COLC regulations:

(1) A 4% limit on the aggregate weighted price increase for the physician's office. (2) A 10% limit on increases of any individual service or procedure (no fee under \$10 may be increased by more than \$1). (3) A revenue margin limitation. (4) Accumulated allowable increases not previously taken in 1972 and 1973, in accordance with rules from Phase II and Phase III. (5) Voluntary compliance with random monitoring by COLC and carriers for Medicare and Medicaid. (6) Requirement of physicians to post an easily readable sign stating the availability and location of a price schedule of fees.

KMA will keep members up-to-date on further action from the COLC regarding physicians' fees.

KMA Increases Washington Input On Recent Federal Proposals

In recent weeks the Kentucky Medical Association and the Kentucky Foundation for Medical Care submitted comments to the Department of HEW in response to the proposed pre-certification regulations published in the January 9 issue of the *Federal Register*.

Both KMA President Fred C. Rainey, M.D., and Foundation President David A. Hull, M.D., in separate communications, urged the Department to seriously reconsider the implications these regulations would have on the quality of health care and requested their non-issuance. (As indicated above, the regulations were eventually withdrawn by HEW.)

In other areas, KMA protested the proposed gas rationing contingency plan published in the January 16 *Federal Register*. In comments filed with the Federal Energy Office, KMA noted that "availability of fuel to physicians and allied medical service personnel in Kentucky is vital" and petitioned for exemption of physicians and other health care personnel from the gas rationing plan.

RKMSF Accepts Applications, Increases Loan Amount

The Rural Kentucky Medical Scholarship Fund is now accepting applications for loans for medical students entering school this fall. The applicant must be a Kentucky resident who has been admitted to one of the two accredited medical schools in the state.

G. L. Simpson, M.D., Greenville, Chairman of the Fund, notes that this year a student may borrow up to \$3,000 per year (an increase of \$500) providing he will agree to practice either in any of the over 100 rural Kentucky counties or with the Kentucky Public Health Service in an approved area.

Created in 1946 to provide better distribution of physicians in rural areas of Kentucky, the Fund now has about 194 physicians in practice in 86 Kentucky counties, with 28 serving in critical counties. Since its inception, the Fund has loaned over one million dollars.

Students interested in obtaining more information about the RKMSF should write to: Rural Kentucky Medical Scholarship Fund, 3532 Ephraim McDowell Drive, Louisville 40205, prior to April 1, 1974.

Nominations Being Accepted For KMA Awards

The KMA Awards Committee is now accepting nominations for the Kentucky Medical Association Award and the Distinguished Service Award, according to Richard F. Grise, M.D., Bowling Green, Chairman.

The KMA Award is designed to honor an outstanding layman and the Distinguished Service Award honors the outstanding physician of the year. The awards are presented annually at the President's Luncheon during the KMA Annual Meeting in September.

Nominations for awards should be forwarded to the KMA Headquarters Office, Attention: Awards Committee.

Pulmonary Diseases Is Topic For Lexington Clinic Mtg.

The annual Spring Conference of the Lexington Clinic and Lexington Clinic Foundation will be held Thursday, April 4. Discussion will center around "Recent Advances in the Management of Pulmonary Diseases" and will include presentations on respiratory distress syndrome, allergic lung disorders, pneumoconiosis, and new problems in the diagnosis and control of tuberculosis.

In addition to members of the Lexington Clinic staff, speakers for the all-day session include Jack R. Coyer, M.D., and Robert J. Floro, A.R.I.T., Lexington; Emery E. Lane, M.D., Louisville; Laurence S. Farer, M.D., Center for Disease Control, Atlanta; and W. Wayne Lake, Jr., M.D., Louisiana State University, New Orleans.

Application for prescribed credit from the American Academy of Family Physicians has been made for the program which is open to all physicians. There is no registration fee, but pre-registration can be made by contacting Clayton McKinney, Lexington Clinic, 1221 South Broadway, Lexington, 40504.

Rheumatic Disease Symposium To Be Held May 9

"Pathogenesis and Management of Rheumatic Diseases" will be the theme for the Tenth Postgraduate Symposium on Rheumatic Diseases to be held Thursday, May 9, according to David H. Neustadt, M.D., Chief of Section on Rheumatic Diseases, University of Louisville School of Medicine.

The full-day conference will feature discussions on osteoarthritis, ankylosing spondylitis, gout and several other topics. Included in the guest faculty are John J. Calabro, M.D., Professor of Medicine, University of Massachusetts; George E. Ehrlich, M.D., Professor of Medicine, Temple University; Henry J. Mankin, M.D., Professor of Orthopaedic Surgery, Harvard Medical School; and Lawrence E. Shulman, M.D., Professor of Medicine, Johns Hopkins University and President-Elect, American Rheumatism Association.

There is no registration fee for the annual symposium which will be held in the Health Sciences Center auditorium at the University of Louisville. Sponsors for the conference are the University of Louisville School of Medicine and the Kentucky Chapter of the Arthritis Foundation.

Family Practice Board Announces Exam

The American Board of Family Practice announces that it will give its next two-day written certification examination on October 19-20, 1974. It will be held in five centers geographically distributed throughout the United States.

It is necessary for any physician desiring to take the

exam to file a completed application with the Board office before **June 15, 1974.**

Information regarding the exam may be obtained from: Nicholas J. Pisacano, M.D., Secretary, American Board of Family Practice, Inc., University of Kentucky Medical Center, Annex #2, Room 229, Lexington 40506.

"Cancer in Women" Meeting Set for May 31-June 1

The Kentucky Obstetrical and Gynecological Society will hold its 27th annual meeting May 31-June 1 in conjunction with the Fourth Biennial Symposium of the Kentucky Division of the American Cancer Society. The theme of the conjoint meeting will be "Cancer in Women."

Guest speakers for the annual conference, which will be held at the Galt House, Louisville, include Luis Delclos, M.D. and Julian Smith, M.D., both from Houston; Hugh Barber, M.D., New York City; and Professor Franc Novak from the University of Yugoslavia.

Ky. Anesthesiologists Elect

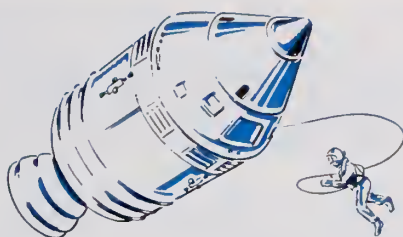
The Kentucky Society of Anesthesiologists at their recent annual meeting elected the following officers to serve for 1974: Robert W. Lykins, M.D., Louisville, President; William E. Waltrip, M.D., Lexington, President-Elect; N. Keith Kirby, M.D., Bowling Green, 1st Vice-President; J. Antonio Aldrete, M.D., Louisville, 2nd Vice-President; Kunnathu P. Geevarghese, M.D., Louisville, Secretary-Treasurer.

PHYSICIANS

Private practice (solo, partnerships, groups) opportunities exist in several communities within the state of Kentucky (Morganfield, Mayfield, Bowling Green, and Frankfort). As a public service to these communities, we are performing a free, no obligation, service acting as a liaison between physicians interested in practice opportunities and communities in need of their services. These communities have modern, JCAH approved hospitals, modern offices, and recognized needs for additional physicians.

For details call collect 615-327-9551 or write with C.V. to:

*E. J. Ryan, Jr., Corporate Director,
Medical Relations
Hospital Corporation of America
One Park Plaza
Nashville, Tennessee 37203*



Man in space, now fait accompli, re-emphasizes the importance of Uro-Phosphate therapy. Research into the effect of space travel on the astronaut reveals that weightlessness causes loss of bone calcium. As the bones are required to bear less and less of the weight of the body they lose calcium, increasing the calcium content of the urine. When physical activity is reduced, the acidity of the urine should be adjusted to keep increased calcium in solution . . . a prophylaxis to prevent kidney or bladder calculi.

Uro-Phosphate®

NOW A SUGAR-COATED TABLET

Each tablet contains: METHENAMINE, 300 mg.; SODIUM ACID PHOSPHATE, 500 mg.

Uro-Phosphate gives comfort and protection when inactivity causes discomfort in the urinary function. It keeps calcium in solution, preventing calculi; it maintains clear, acid, sterile urine; it encourages

complete voiding and lessens frequency when residual urine is present.

Uro-Phosphate contains sodium acid phosphate, a natural urinary acidifier. This component is fortified with methenamine which is inert until it reaches the acid urinary bladder. In this environment it releases a mild antiseptic keeping the urine sterile.

Uro-Phosphate is safe for continuous use. There are no contra-indications other than acidosis. It can be given in sufficient amount to keep the urine clear, acid and sterile. A heavy sugar coating protects its potency.

Dosage:

For protection of the inactive patient 1 or 2 tablets every 4 to 6 hours is usually sufficient to keep the urine clear, acid and sterile.

2 tablets on retiring will keep residual urine acid and sterile, contributing to comfort and rest.

A clinical supply will be sent to physicians and hospitals on request.



WILLIAM P. POYNTHRESS & COMPANY, INC., RICHMOND, VIRGINIA 23217

Manufacturers of Ethical Pharmaceuticals

What's on your patient's face...

may be more important than his chief complaint

Patient P.T.* seen on 3/29/67 shows typical lesions of moderately severe keratoses. Note residual scarring on ridge of nose from previous cryosurgical and electro-surgical procedures.



Patient P.T.* seen on 6/12/67, seven weeks after discontinuation of 5% FU cream. Reaction has subsided. Residual scarring not seen except that due to prior surgery. Inflammation has cleared and face is clear of keratotic lesions.

*Data on file,
Hoffmann-La Roche
Inc., Nutley, N.J



he lesions on his face e solar/actinic— -called "senile" keratoses... and they may be premalignant.

ar, actinic or senile keratoses

Lesions may be called by several names, but they can be identified by the following characteristics. The typical lesion is flat or slightly elevated, of a pinkish or reddish color, papular, dry, rough, adherent and sharply defined. They commonly occur as multiple lesions, chiefly on the exposed portions of the skin.

quence of therapy— ctivity of response

After several days of therapy with Efudex® (fluorouracil), edema may begin to appear in the area of the lesions; the reaction usually reaches its height of unsightliness and discomfort within two weeks, declining after discontinuation of therapy. This reaction occurs in affected areas. Since the response is so predictable, lesions that do not respond should be biopsied.

ceptable results

Treatment with Efudex provides highly favorable cosmetic results. Incidence of scarring is low. This is particularly important with multiple facial lesions. Efudex should be applied with care near the eyes, nose and mouth.

Before prescribing, please consult complete product information, a summary of which follows:

Indications: Multiple actinic or solar keratoses.

Contraindications: Patients with known hypersensitivity to any of its components.

Warnings: If occlusive dressing used, may increase inflammatory reactions in adjacent normal skin. Avoid prolonged exposure to ultraviolet rays. Safe use in pregnancy; not established.

Precautions: If applied with fingers, wash hands immediately. Apply with care near eyes, nose and mouth. Lesions failing to respond or recurring should be biopsied.

Adverse Reactions: Local—pain, pruritus, hyperpigmentation and burning at application site most frequent; also dermatitis, scarring, soreness and tenderness. Also reported—insomnia, stomatitis, suppuration, scaling, swelling, irritability, medicinal taste, photosensitivity, lacrimation, leukocytosis, thrombocytopenia, toxic granulation and eosinophilia.

Dosage and Administration: Apply sufficient quantity to cover lesion twice daily with nonmetal applicator or suitable glove. Usual duration of therapy is 2 to 4 weeks.

How Supplied: Solution, 10-ml drop dispensers—containing 2% or 5% fluorouracil on a weight/weight basis, compounded with propylene glycol, tris(hydroxymethyl)aminomethane, hydroxypropyl cellulose, parabens (methyl and propyl) and disodium edetate.

Cream, 25-Gm tubes—containing 5% fluorouracil in a vanishing cream base consisting of white petrolatum, stearyl alcohol, propylene glycol, polysorbate 60 and parabens (methyl and propyl).



Roche Laboratories
Division of Hoffmann-La Roche Inc.
Nutley, N.J. 07110

his patient's lesions were resolved with

Efudex® fluorouracil/Roche®

5% cream/solution...a Roche exclusive

Synthroid

(sodium levothyroxine)

the smooth road to thyroid replacement therapy.

Synthroid is T₄.
It provides your patients with
what is needed for complete
thyroid replacement therapy.



Free Tab-Minder sample
packages available
from Flint Professional
Services Department.

Indications: SYNTHROID (sodium levothyroxine) is specific replacement therapy for diminished or absent thyroid function resulting from primary or secondary atrophy of the gland, congenital defect, surgery, excessive radiation, or antithyroid drugs. Indications for SYNTHROID (sodium levothyroxine) **Tablets** include myxedema, hypothyroidism without myxedema, hypothyroidism in pregnancy, pediatric and geriatric hypothyroidism, hypopituitary hypothyroidism, simple (nontoxic) goiter, and reproductive disorders associated with hypothyroidism. SYNTHROID (sodium levothyroxine) **for Injection** is indicated for intravenous use in myxedematous coma and other thyroid dysfunctions where rapid replacement of the hormone is required. The injection is also indicated for intramuscular use in cases where the oral route is suspect or contraindicated due to existing conditions or to absorption defects, and when a rapid onset of effect is not desired.

Precautions: As with other thyroid preparations, an overdosage of SYNTHROID (sodium levothyroxine) may cause diarrhea or cramps, nervousness, tremors, tachycardia, vomiting and continued weight loss. These effects may begin after four or five days or may not become apparent for one to three weeks. Patients receiving the drug should be observed closely for signs of thyrotoxicosis. If indications of overdosage appear, discontinue medication for 2-6 days, then resume at a lower dosage level. In patients with diabetes mellitus, careful observations should be made for changes in insulin or other antidiabetic drug dosage requirements. If hypothyroidism is accompanied by adrenal insufficiency, such as Addison's Disease (chronic adrenocortical insufficiency), Simmonds's Disease (panhypopituitarism) or Cushing's syndrome (hyperadrenalism), these dysfunctions must be corrected prior to and during SYNTHROID (sodium levothyroxine) administration. The drug

should be administered with caution to patients with cardiovascular disease; development of chest pains or other aggravations of cardiovascular disease requires a reduction in dosage.

Contraindications: Thyrotoxicosis, acute myocardial infarction. **Side effects:** The effects of SYNTHROID (sodium levothyroxine) therapy are usually in being manifested. Side effects, when they occur, are secondary to increased rates of metabolism; sweating, heart palpitation, nervousness, or without pain, leg cramps, and weight loss. Diarrhea, vomiting, and nervousness have been observed. Myxedematous patients with heart disease have died from abrupt increase in dosage of thyroid drugs. Careful observation of the patient during the beginning of therapy will alert the physician to possible side effects toward effects.

It has been shown that *Synthroid* (T₄) converts to T₃ at the cellular level to supply metabolic needs.^{1, 2}

1 *Synthroid* is T₄.

2 Because T₄ converts to T₃ at the cellular level, it provides full thyroid replacement at maintenance doses.^{1, 2}

3 T₄ hormone content is controlled by chemical assay.

4 *Synthroid* is assayed chemically; no biologic test is necessary to measure potency.

5 *Synthroid* provides predictable results when used with current thyroid function tests.

6 *Synthroid* is the most prescribed brand name of thyroid in the U. S. and Canada.

7 Sodium levothyroxine in *Synthroid* tablets is chemically pure. It does not contain any animal gland parts.

8 When stored properly, *Synthroid* has a longer shelf life than desiccated thyroids.

9 On a daily basis, *Synthroid* is cost competitive with other thyroid products.

The smooth road to
thyroid replacement therapy.

Synthroid[®]
(sodium levothyroxine)

In most cases with side effects, a reduction of the dose followed by a more gradual adjustment will result in a more accurate indication of the patient's dosage requirements without the occurrence of side effects.

Dose and Administration: The activity of 1 mg. SYNTHROID (sodium levothyroxine) is equivalent to approximately one grain of desiccated thyroid. Administer SYNTHROID tablets in a single daily dose. In hypothyroidism without myxedema, the usual initial adult dose is 0.1 mg. daily, and may be increased by 0.1 mg. every 30 days until proper metabolic balance is reached. Clinical evaluation should be made by T₄ and PBI measurements about every 90 days. Final maintenance dosage will usually range from 0.2-0.4 mg. daily. In adult myxedema, the initial dose should be 0.025 mg. daily. The

dose may be increased to 0.05 mg. after two weeks and to 0.1 mg. at the end of a second two weeks. The daily dose may be further increased at two-month intervals by 0.1 mg. until the optimum maintenance dose is reached (0.1-1.0 mg. daily).

Supplied: Tablets: 0.025 mg., 0.05 mg., 0.1 mg., 0.15 mg., 0.2 mg., 0.3 mg., 0.5 mg., scored and color-coded, in bottles of 100, 500, and 1000. Injection: 500 mcg. lyophilized active ingredient and 10 mg. of Mannitol, U.S.P., in 10 ml. single-dose vial, with 5 ml. vial of Sodium Chloride Injection, U.S.P., as a diluent. SYNTHROID (sodium levothyroxine) for Injection may be administered intravenously utilizing 200-400 mcg. of a solution containing 100 mcg. per ml. If significant improvement is not shown the following day, a repeat injection of 100-200 mcg. may be given.

1. Braverman, L. E., Ingbar, S. H., and Sterling, K.: Conversion of Thyroxine (T₄) to Triiodothyronine (T₃) in Atherotic Human Subjects, *J. Clin. Invest.* 49:855-64, 1970.

2. Surks, M. I., Schadow, A. R., and Oppenheimer, J. H.: A New Radioimmunoassay for Plasma L-Triiodothyronine: Measurements in Thyroid Disease and in Patients Maintained on Hormonal Replacement. *J. Clin. Invest.* 51:3104-13, 1972.



FLINT LABORATORIES

DIVISION OF TRAVENOL LABORATORIES, INC.
Deerfield, Illinois 60015

Support the AMA-ERF Through KMA Woman's Auxiliary

AMA-ERF does not stand for the American Medical Association Emergency Relief Fund, but in view of the drastic cutback and shortage of federal funds for medical schools, it well could. The American Medical Association EDUCATION AND RESEARCH FOUNDATION is one of the very few sources of *flexible* funds available to medical schools. Each medical school dean may use the funds he receives from AMA-ERF to help solve his most pressing financial problems—no strings attached.

AMA-ERF receives its funds from two main sources:

- 1) Money raised by medical auxiliaries through a tremendous variety of projects, and
- 2) Physicians' contributions.

Every cent donated to AMA-ERF goes to help medical education. The AMA underwrites the entire cost of administering the fund.

For the fiscal year which ended May 31, 1972, \$965,000 was contributed nationally to AMA-ERF. In Kentucky we raised more than ever before, \$11,332—nearly double what we contributed just two years previously.

We can be proud of the help we have given medical education, but it is more interesting to note that with the exception of Mississippi, every state in the southern region contributed more than Kentucky. Alabama contributed \$39,000 and Tennessee donated \$45,000.

Won't you please help AMA-ERF and our medical schools this year? Your contribution will be sent in your name to the medical school you designate or, if you prefer, to the Loan Guarantee Fund. In return, you will receive a thank you note from the dean of the medical school to which you contribute. More important, you will have the satisfaction of demonstrating in a tangible way that physicians do care about the quality of medical education in America.

Clip and mail:

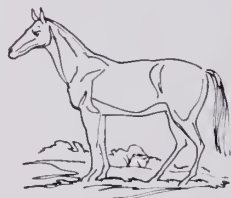
At Your Service in The Bluegrass State

In the state* that got its
nickname from the dusty-blue
blossoms of the grass
around Lexington...



PHARMACEUTICAL DIVISION
MARION
LABORATORIES, INC.
KANSAS CITY, MO. 64137

is represented by...



Larry Farmer



Lee Fuqua



John McKinney



Bill Nicol



Larry Plumlee



Jon Swanson

*For more information on the history of your state, write Professional Services, Marion Laboratories, Inc.

These men bring you ...

AMA-ERF DONATION FORM

Name _____

Address _____

Amount of gift _____

Designated for:

☐ Funds of Medical Schools to be divided equally among all medical schools

☐ _____ Name of Medical School

☐ Loan Guarantee Fund

Send to: Mrs. William R. Meeker, Jr.
Kentucky AMA-ERF Chrm.
417 Fayette Park
Lexington, Ky. 40508

Make checks payable to AMA-ERF.
All contributions are tax deductible.

NEWS ITEMS

R. Parnell Rollings, M.D., Louisville, has recently become a full-time medical consultant for Blue Cross and Blue Shield of Kentucky. Doctor Rollings has had an active practice in family medicine in Louisville since 1945.

Nicholas J. Pisacano, M.D., Lexington, was recently re-elected Secretary of the American Board of Family Practice at the January semi-annual meeting of the organization.

Cassette Directory Available

The Cassette Information Service of Los Angeles has published its 1974 Directory of Spoken-Voice Audio-Cassettes which is a compendium of program titles and subjects that can be found on audio-cassettes. The directory lists programs in all fields and interests, although the services for the health sciences comprise a large portion of the 108-page directory which is available for \$5 from Cassette Information Services, Box 17727, Los Angeles, Calif. 90057.

**ts comfort
your prescription
nicotinic acid**

THE OPTIMAL-DOSE, 400-mg, timed-release NICO-400® (nicotinic acid) capsule provides • Controlled flushing for the desired effects without therapy-limiting side effects. • Convenient b.i.d. dosage that's less likely to be forgotten. • The economy of nicotinic acid medication.

For comfort wherever nicotinic acid is used

NICO-400®
(nicotinic acid) Plateau CAPS®

Description: Each capsule contains 400 mg of nicotinic acid in a special base that provides a prolonged systemic effect. **Indications:** NICO-400® is recommended for all disease states in which nicotinic acid has been used. These include conditions associated with deficient circulation and for use in the correction of nicotinic acid deficiencies. **Contraindications:** Individuals with a hypersensitivity to nicotinic acid, severe hypotension or hemorrhaging. **Warnings:** Use with caution in those patients with history of peptic ulcer, severe diabetes, impaired gall bladder or liver functions and in pregnant women. **Adverse Reactions:** Patients should be informed of the short-lived reactions experienced with nicotinic acid therapy: cutaneous flushing, a sensation of warmth, tingling and itching of the skin, increased gastrointestinal motility and sebaceous gland activity. **Dosage and Administration:** One capsule every 12 hours or as directed by physician. **Caution:** Federal law prohibits dispensing without prescription. **How Supplied:** Bottles of 100 capsules.

Another patient benefit product from

MARION
PHARMACEUTICAL DIVISION
LABORATORIES INC.
K. A. C. T. M.S. OUR 64-32

In Memoriam

HUBERT C. JONES, M.D.

**Berea
1918-1974**

Hubert C. Jones, M.D., died on January 17 at the age of 55. He was a 1943 graduate of the University of Louisville School of Medicine and practiced in Berea as a general surgeon. Doctor Jones was a member of the Madison County Medical Society and the Kentucky Medical Association.

GILBERT G. RAWLINGS, M.D.

**Louisville
1914-1974**

Gilbert G. Rawlings, M.D., Louisville, 59, died on January 18. A 1947 graduate of the University of Louisville School of Medicine, Doctor Rawlings practiced ophthalmology. He belonged to the Jefferson County Medical Society, and the Kentucky and American medical associations.

NATHAN LEVENE, M.D.

**Louisville
1918-1974**

Nathan Levene, M.D., Louisville, died at the age of 55 on January 20. A 1943 graduate of Baylor University College of Medicine, Doctor Levene is a former chief of surgery at Hazelwood Hospital and was a fellow of the American College of Chest Physicians. He belonged to the Jefferson County Medical Society and the Kentucky and American medical associations.

SAMUEL M. SMITH, JR., M.D.

**Louisville
1919-1974**

Samuel M. Smith, Jr., M.D., 54, died January 26 in Louisville. Doctor Smith, a 1944 graduate of the Columbia University School of Medicine, had practiced internal medicine in Louisville for 24 years. He was a fellow of the American College of Physicians and belonged to the Louisville Society of Internists. He was also a member of the Jefferson County Medical Society and the Kentucky and American medical associations.

JOHN J. WERNERT, M.D.

**Louisville
1924-1974**

John J. Wernert, Jr., M.D., Louisville, died February 14 at the age of 49. A psychiatrist, Doctor Wernert graduated in 1958 from the University of Louisville School of Medicine. He belonged to the Jefferson County Medical Society and the Kentucky Medical Association.

General LEASING

Doctor! This is Your Own I
ENDORSED BY THE

**Kentucky Medical
Association**

for the leasing of

cars — all makes & models,

Medical, Surgical & Laboratory

Equipment

and Office Furnishings.

**13 YEARS EXPERIENCE
IN THIS FIELD**

**General Leasing
CORPORATION**

121 Bauer Ave. St. Matthews

(502) 896-0383



When their worst subject is acne

many things may help:
patient education, antibiotics,
diet, cleaner skin and the

Clearasil® formula sulfur, resorcinol, bentonite

Basic peeling/drying formulation—plus
the proven sebum-absorbing action of bentonite—
for the daily routine of anti-acne therapy.



Clearasil: therapeutically sound combinations
of professionally recommended ingredients

- Cosmetically suited to teen-ager's needs
- Low cost—ready availability

For a supply of Clearasil "self-starter" samples
and/or a supply of the patient education booklet,
'The Many Faces of Acne Therapy,' simply write
to the following address: Vick Chemical Company,
122 East 42nd Street, New York, N.Y. 10017.
Attention: S. M. Yanklowitz.

	Regular Tinted	Vanishing Formula
Sulfur	8%	3%
Resorcinol	2%	2%
Bentonite	11.5%	10%



EYES RIGHT! ...to SOUTHERN OPTICAL

LOUISVILLE Southern Optical Bldg. — 640 S. 4th
Contact Lenses — 640 S. 4th
Medical Towers Bldg., Floyd & Gray
Doctors Office Bldg., Liberty at Floyd
Medical Arts Bldg., 1169 Eastern Parkway
Professional Bldg. East, 3101 Breckinridge Lane
Medix Bldg. — Adj. S.S. Mary & Elizabeth Hosp.

ST. MATTHEWS 313 Wallace Center and 108 McArthur Drive

NEW ALBANY Professional Arts Bldg., 1919 State Street

BOWLING GREEN 524 East Main Street

OWENSBORO Doctors Bldg., 1001 Center Street



*Southern
Optical*

CHARGE ACCOUNTS
INVITED
BankAmericard
Master Charge

Professional

75
YEARS

Protection

CONTINUOUSLY

Since 1899

THE
MEDICAL PROTECTIVE COMPANY
FORT WAYNE, INDIANA

LOUISVILLE OFFICE: Riley Lassiter, Representative
Suite 260
Shelbyville Road Mall Office Center
400 Sherburn Lane
Telephone: (Area Code 502) 895-5501
Mailing Address: P.O. Box 20065, Louisville, Kentucky 40220

Before prescribing, please consult complete product information, a summary of which follows:

Indications: Relief of anxiety and tension occurring alone or accompanying other disease states.

Contraindications: Patients with known hypersensitivity to the drug.

Warnings: Caution patients about possible combined effects with alcohol and other CNS depressants. As with all sedating drugs, caution patients about hazardous occupations requiring complete mental alertness (e.g., operating machinery, driving). Though physical and psychological dependence have not been reported on recommended dosages, use caution in administering to addiction-prone individuals or those who might increase dosage; withdrawal symptoms (including convulsions), following discontinuation of the drug and similar to those seen with barbiturates, have been reported. Use of any drug in pregnancy, lactation, or in women of childbearing potential requires that its potential benefits be weighed against its possible hazards.

Precautions: In the elderly and debilitated, and in children over six, limit to the least effective dosage (initially 10 mg or less per day) to preclude ataxia or sedation, increasing gradually as needed and tolerated. Not recommended in children under six. Though generally recommended, if combination therapy with other psychotropics seems indicated, fully consider individual pharmacologic effects, particularly in use of potent sedating drugs such as MAO inhibitors and phenothiazines. Observe usual precautions in presence of impaired renal and hepatic function. Paradoxical reactions (e.g., excitement, stimulation and hyperactivity) have been reported in psychiatric patients and hyperactive aggressive children. Employ usual precautions in treatment of anxiety states with evidence of impending depression; suicidal tendencies may be present and protective measures necessary. Variable effects on blood coagulation have been reported very rarely in patients receiving the drug and oral coagulants; causal relationship has not been established clinically.

Adverse Reactions: Drowsiness, dizziness and confusion may occur, espe-

cially in the elderly and debilitated. These are reversible in most instances by proper dosage adjustment, but are also occasionally observed at the lower dosage ranges. In a few instances syncope has been reported. Also encountered are isolated instances of skin eruptions, edema, minor menstrual irregularities, nausea and constipation, extrapyramidal symptoms, increased and decreased libido—all infrequent and generally controlled with dosage reduction; changes in EEG patterns (low-voltage fast activity) may appear during and after treatment; blood dyscrasias (including agranulocytosis), jaundice and hepatic dysfunction have been reported occasionally, making periodic blood counts and liver function tests

advisable during protracted therapy.

Usual Daily Dosage: Individualize for maximum beneficial effects. *Oral—Adults:* Mild and moderate anxiety and tension, 5 or 10 mg *t.i.d.* or *q.i.d.*; severe states, 20 or 25 mg *t.i.d.* or *q.i.d.* *Geriatric patients:* 5 mg *b.i.d.* to *q.i.d.* (See Precautions.)

Supplied: Librium® (chlordiazepoxide HCl) Capsules, 5 mg, 10 mg and 25 mg—bottles of 100 and 500; Tel-E-Dose® packages of 1000. Libritabs® (chlordiazepoxide) Tablets, 5 mg, 10 mg and 25 mg—bottles of 100 and 500. With respect to clinical activity, capsules and tablets are indistinguishable.



Roche Laboratories
Division of Hoffmann-La Roche Inc.
Nutley, N.J. 07110

to help reduce clinically significant anxiety and
thereby help improve patient receptivity

Librium® up to 100 mg daily in
severe anxiety
(chlordiazepoxide HCl)

Please see following page.



Symptom of excessive anxiety:

The patient may have difficulty in accepting medical counsel.

Clinical experience has shown that some unduly anxious patients may tend to deny or minimize their illness and therefore resist seeking

or following medical advice. Through its antianxiety action, adjunctive Librium (chlordiazepoxide HCl) can often calm the emotionally tense pa-

tient, thereby encouraging physician rapport and, on occasion, making it easier for the patient to accept medical counsel.

for relief of excessive anxiety



Librium[®] 10-mg capsules
(chlordiazepoxide HCl)

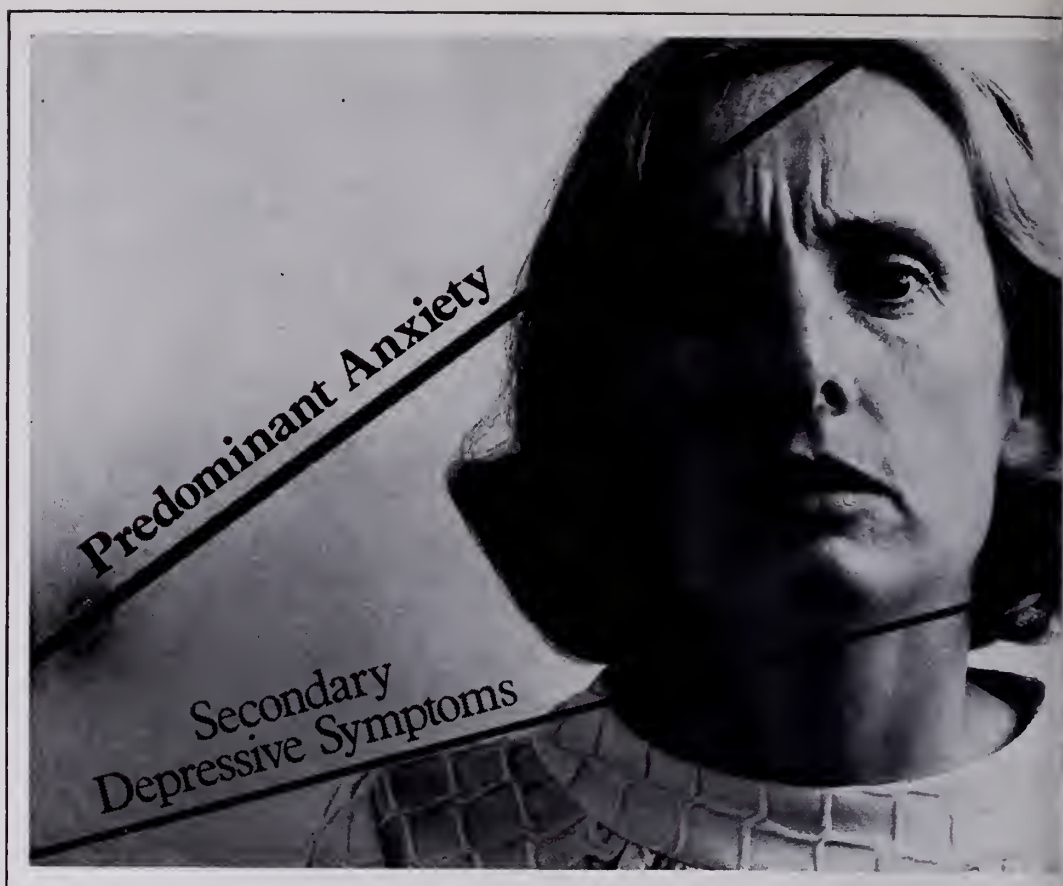
Please see reverse side
for summary of product information.



The Journal of The KENTUCKY Medical Association

Use of the Flexible Fiberoptic Colonoscope Patrick Hagihara, M.D. and Ward Griffen, Jr., M.D.	193
Recognition and Management of Idiopathic Hypertrophic Subaortic Stenosis in Older Patients Robert Goodin, M.D., Ronald Masden, M.D. and Daniel McMartin, M.D.	201
Diagnosis and Treatment of Scabies Steven Hodge, M.D. and Lafayette Owen, M.D.	205
The Success of Private Practice W. Neville Caudill, M.D.	212

Complete Contents on Page 179



This psychoneurotic often responds

Before prescribing, please consult complete product information, a summary of which follows:

Indications: Tension and anxiety states; somatic complaints which are concomitants of emotional factors; psychoneurotic states manifested by tension, anxiety, apprehension, fatigue, depressive symptoms or agitation; symptomatic relief of acute agitation, tremor, delirium tremens and hallucinosis due to acute alcohol withdrawal; adjunctively in skeletal muscle spasm due to reflex spasm to local pathology, spasticity caused by upper motor neuron disorders, athetosis, stiff-man syndrome, convulsive dis-

orders (not for sole therapy).

Contraindicated: Known hypersensitivity to the drug. Children under 6 months of age. Acute narrow angle glaucoma; may be used in patients with open angle glaucoma who are receiving appropriate therapy.

Warnings: Not of value in psychotic patients. Caution against hazardous occupations requiring complete mental alertness. When used adjunctively in convulsive disorders, possibility of increase in frequency and/or severity of grand mal seizures may require increased dosage of standard anticonvulsant

medication; abrupt withdrawal be associated with temporary increase in frequency and/or severity of seizures. Advise against simultaneous ingestion of alcohol and other CNS depressants. Withdrawal symptoms (similar to those with barbiturates and alcohol) have occurred following abrupt discontinuance (convulsions, tremor, abdominal and muscle cramps, vomiting and sweating). Keep addicted individuals under careful surveillance because of their predisposition to habituation and dependence. In pregnancy, lactation or women of childbearing age, weigh potential benefit against possible hazard.

When you determine that the depressive symptoms are associated with or secondary to predominant anxiety in the psychoneurotic patient, consider Valium (diazepam) in addition to reassurance and counseling, for the psychotherapeutic support it provides. As anxiety is relieved, the depressive symptoms are also often relieved or reduced.

The beneficial effect of Valium is usually pronounced and rapid. Improvement generally becomes evident within a few days, although

some patients may require a longer period. Moreover, Valium (diazepam) is generally well tolerated. Side effects most commonly reported are drowsiness, ataxia and fatigue. Caution your patients against engaging in hazardous occupations or driving.

Frequently, the patient's symptoms are greatly intensified at bedtime. In such situations, Valium offers an additional advantage: adding an *h.s.* dose to the *b.i.d.* or *t.i.d.* schedule can relieve the anxiety and thus may encourage a more restful night's sleep.

symptom complex

Valium[®] (diazepam)

Precautions: If combined with psychotropics or anticonvulsants, consider carefully pharmacologic agents employed; drugs such as phenothiazines, narcotics, barbiturates, MAO inhibitors and antidepressants may potentiate action. Usual precautions apply in patients severely depressed, or with latent depression, or suicidal tendencies. Observe usual precautions in impaired renal

or hepatic function. Limit dosage to smallest effective amount in elderly and debilitated to preclude ataxia or oversedation.

Side Effects: Drowsiness, confusion, diplopia, hypotension, changes in libido, nausea, fatigue, depression, dysarthria, jaundice, skin rash, ataxia, constipation, headache, incontinence, changes in salivation, slurred speech, tremor, vertigo, urinary retention, blurred

vision. Paradoxical reactions such as acute hyperexcited states, anxiety, hallucinations, increased muscle spasticity, insomnia, rage, sleep disturbances, stimulation have been reported; should these occur, discontinue drug. Isolated reports of neutropenia, jaundice; periodic blood counts and liver function tests advisable during long-term therapy.

Valium[®] 2-mg, 5-mg, 10-mg tablets
(diazepam)



Roche Laboratories
Division of Hoffmann-La Roche Inc.
Nutley, N.J. 07110



POSTGRADUATE SYMPOSIUM ON RHEUMATIC DISEASES



THURSDAY, MAY 9, 1974

9:00 a.m.—5 p.m.

AUDITORIUM, HEALTH
SCIENCES CENTER

UNIVERSITY OF LOUISVILLE
SCHOOL OF MEDICINE

Preston & Walnut Streets

SPONSORED BY THE UNIVERSITY OF LOUISVILLE SCHOOL OF MEDICINE
AND THE KENTUCKY ARTHRITIS FOUNDATION

TOPIC: PATHOGENESIS AND MANAGEMENT OF RHEUMATIC DISEASES

This symposium emphasizes pathogenesis and management of various rheumatic diseases. Topics will include osteoarthritis, extra-articular complications of rheumatoid arthritis, systemic lupus erythematosus, gout and pseudogout, ankylosing spondylitis and seronegative arthritides, such as psoriatic arthropathy and Reiter's syndrome. Panel discussions with audience participation on diagnostic and therapeutic problems will conclude the morning and afternoon sessions.

PROGRAM DIRECTOR: DAVID H. NEUSTADT, M.D.

JOHN J. CALABRO, M.D.

University of Massachusetts

GEORGE E. EHRLICH, M.D.

Temple University

J. WILLIAM HOLLINGSWORTH, M.D.

University of Kentucky

HENRY J. MANKIN, M.D.

Harvard Medical School

DANIEL J. McCARTY, M.D.

Medical College of Wisconsin

LAWRENCE E. SHULMAN, M.D.

Johns Hopkins University

*Pathogenesis and Management of
Ankylosing Spondylitis*

*Pathogenesis and Management of Seronegative
Arthritides (Psoriatic, Reiter's)*

*Pathogenesis and Management of
Complications of Rheumatoid Arthritis*

*Pathogenesis and Management of
Osteoarthritis*

*Pathogenesis and Management of
Gout and Pseudogout*

*Pathogenesis and Management of
Systemic Lupus Erythematosus*

NO REGISTRATION FEE

Special Luncheon Fee \$2.00

Approved for seven accredited hours by American Academy of Family Physicians

FOR FURTHER INFORMATION CONTACT KENTUCKY ARTHRITIS FOUNDATION,
1381 BARDSTOWN RD., LOUISVILLE, KY. 40204 AC (502) 459-6460.

- EDITOR
Walter I. Hume, Jr., M.D.
- ASSOCIATE EDITOR
Henry B. Asman, M.D.
- ASSISTANT EDITOR
A. Evan Overstreet, M.D.
- EXECUTIVE EDITOR
Robert G. Cox
- MANAGING EDITOR
Jerry E. Mahoney
- ASSISTANT MANAGING EDITOR
Diane Maxey
- DEPARTMENTAL EDITORS
Charles C. Smith, Jr., M.D., Scientific
John W. Greene, Jr., M.D., Maternal
Mortality

• BOARD OF CONSULTANTS
ON SCIENTIFIC ARTICLES

Term Expires July 1, 1976

- Gehrig M. Robinson, M.D.
- Mark S. Sexter, M.D.
- Thomas E. Booth, M.D.
- Patrick L. Jasper, M.D.
- Oscar W. Thompson, M.D.
- Stephen C. Schindler, M.D.
- Van R. Jenkins, M.D.
- John W. Miller, M.D.

Term Expires July 1, 1975

- Robert E. Arnold, M.D.
- Robert A. Hall, M.D.
- Chrismon S. Jackson, Jr., M.D.
- Lafayette G. Owen, M.D.
- Anne Richmon, M.D.
- Ruel T. Routt, M.D.
- Fronk G. Simon, M.D.
- Leslie Von Nostrand, M.D.

Term Expires July 1, 1974

- David S. Nightingale, M.D.
- Dennis B. Penn, M.D.
- Andrievis J. Dzenitis, M.D.
- Joseph G. Whelon, Jr., M.D.
- Conrad H. Jones, M.D.
- Peter C. Campbell, Jr., M.D.
- William E. Jackson, M.D.
- Edgor W. Woltrip, M.D.

Published at 3532 Ephraim McDowell Drive,
Louisville, Ky. 40205
Phone (Area Code 502) 452-6324

Subscription \$10 (Members \$5)
Single Copy \$1

Second-class postage paid at Louisville, Kentucky.
Acceptance for mailing at special rates postage
provided in Section 1103, act of Oct. 3, 1917,
authorized May 25, 1920.

Journal of The KENTUCKY Medical Association

Contents

SCIENTIFIC ARTICLES

Use of the Flexible Fiberoptic Colonoscope <i>Patrick Hagihara, M.D. and Ward Griffen, Jr., M.D.</i>	193
Recognition and Management of Idiopathic Hyper- trophic Subaortic Stenosis in Older Patients <i>Robert Goodin, M.D., Ronald Masden, M.D. and Daniel McMartin, M.D.</i>	201
Diagnosis and Treatment of Scabies <i>Steven Hodge, M.D. and Lafayette Owen, M.D.</i> ..	205
Endocrine Manifestations of Lung Tumors (Grand Rounds) <i>James Anderson, M.D.</i>	208

SPECIAL ARTICLES

The Success of Private Practice <i>W. Neville Caudill, M.D.</i>	212
University of Kentucky SAMA Summer Program in Health Careers <i>Dewey Ballard, B.S., Tom James, M.D. and John Wolff, Jr., M.A.</i>	215

EDITORIAL

Drug Advertisement	219
--------------------------	-----

SPECIAL FEATURE

1974 Scientific Exhibit Application	232
---	-----

ORGANIZATION

1974 Emergency Health Care Seminar Approved for CME Credit ...	220
KEMPAC Presented Two Awards at AMPAC Workshop	225
Public Relations Meeting Set for Office Assistants	225

REGULAR FEATURES

President's Page	181	Maternal Mortality	183
Postgraduate Opportunities ..	182	Letters to Editor	218

KENTUCKY MEDICAL ASSOCIATION

BOARD OF TRUSTEES — 1973-1974

Officers

President	FRED C. RAINEY 912 Woodland Dr., Elizabethtown 42701 (502) 765-4147 .1974
President-Elect	HOYT D. GARDNER 508 Watterson City Bldg., Louisville 40218 (502) 452-2684 .1974
Immediate Past President	LEE C. HESS 7211 U. S. 42, Florence 41042 (606) 371-1153 .....1974
Vice-President	GABE A. PAYNE 1610 S. Main St., Hopkinsville 42240 (502) 885-8445 ....1974
Secretary	S. RANDOLPH SCHEEN 1163 Medical Arts Bldg., Louisville 40217 (502) 451-1661 .1975
Treasurer	KEITH P. SMITH Medical Arts Bldg., Corbin 40701 (606) 528-3211 .....1975
Speaker, House of Delegates ...	RICHARD F. GREATHOUSE 5 Triangle Center, Louisville 40220 (502) 458-3219 .....1974
Vice-Speaker	CARL COOPER, JR. Bedford 40006 (502) 255-3282 .....1974
Chairman, Board of Trustees ...	BALLARD W. CASSADY Pikeville Medical Bldg., Pikeville 41501 (606) 437-6698 ..1974
Vice-Chairman	PAUL J. PARKS 1109 State St., Bowling Green 42101 (502) 781-5111 ....1974

Delegates to the A.M.A.

J. THOS. GIANNINI, Suite 3E, Suburban Medical Plaza, Louisville (502) 897-2555	Jan. 1973-Dec. 1974
CHAS. G. BRYANT, (Alt.) 3357 Medical Arts Bldg., Louisville (502) 452-1558	Jan. 1973-Dec. 1974
JOHN C. QUERTERMOUS, 205 S. 8th St., Murray (502) 753-5161	Jan. 1974-Dec. 1975
WILLIAM W. HALL, (Alt.) Mayfair Square, Owensboro (502) 684-6255 ...	Jan. 1974-Dec. 1975
DAVID B. STEVENS, 333 Waller Ave., Lexington (606) 254-8008	Jan. 1974-Dec. 1975
THOMAS L. HEAVERN, (Alt.) 2435 Alexandria, Highland Hgts. (606) 441-7600	Jan. 1974-Dec. 1975

Trustees

1st	W. EUGENE SLOAN, 2320 Broadway, Paducah 42001 (502) 443-4581 .....1974
2nd	CHARLES C. KISSINGER, Atkinson Park, Henderson 42420 (502) 826-6271 .....1976
3rd	RALPH L. CASH, 210 West Main St., Princeton 42445 (502) 365-2037 .....1974
4th	W. BRUCE HAMILTON, 4th & Buckman, Shepherdsville 40165 (502) 543-6362 ...1974
5th	EDWARD N. MAXWELL, St. Joseph Infirmary, Louisville 40217 (502) 636-7461 ..1975
6th	PAUL J. PARKS, 1109 State St., Bowling Green 42101 (502) 781-5111 .....1975
7th	JOHN P. STEWART, 220 Steele St., Frankfort 40601 (502) 227-4718 .....1976
8th	CARL J. BRUEGGEMANN, 325 W. 19th St., Covington 41014 (606) 291-4768 ..1975
9th	JAMES L. FERRELL, Bourbon Medical Ctr., Paris 40361 (606) 987-2200 .....1976
10th	DAVID A. HULL, 2368 Nicholasville Rd., Lexington 40503 (606) 277-5711 ....1976
11th	R. EUGENE BOWLING, 527 W. Main, Richmond 40475 (606) 623-3754 .....1975
12th	ROBERT N. McLEOD, JR., 500 Bourne Ave., Somerset 42501 (606) 678-8155 ....1974
13th	J. WESLEY JOHNSON, 2301 Lexington Ave., Ashland 41101 (606) 325-1151 ....1976
14th	BALLARD W. CASSADY, Pikeville Med. Bldg., Pikeville 41501 (606) 437-6698 ..1974
15th	HAROLD L. BUSHEY, 406 Knox St., Box 770, Barbourville 40906 (606) 546-3024 1975

BUYERS GUIDE

APRIL BUYERS GUIDE FOR JOURNAL OF KMA 1974

Abbott Laboratories	224, 246	Medical Protective Company	240
American Cancer Society	241	Merck Sharp & Dohme	186-188
Blue Cross and Blue Shield of Kentucky	191	Pharmaceutical Manufacturers Association	244-245
Burroughs Wellcome Company	221	Poythress, William P., Company	189
Dorsey Laboratories	242	Robins, A. H. Company	233-234
Flint Laboratories	230-231	Roche Laboratories	176-177, 228-229, 236-237, 247-248
General Leasing Corporation	238	Roeig, J. B. and Company	184-185
Hospital Corporation of America	227	Schmid, Julius, Inc.	238-239
Kentucky Arthritis Foundation	178	Smith Kline and French Laboratories	243
Eli Lilly and Company	192	Southern Optical Company	240
Marion Laboratories	226-227	United States Air Force	200
McNeil Laboratories	190	Vick Chemical Company	235

MESSAGE FROM THE PRESIDENT



1974 Kentucky General Assembly Successfully Concluded

THIS session of the legislature got off to a faster start than perhaps any previous session. Some 200 bills were pre-filed; therefore ready for consideration when the Legislature convened. Mid-session was a bit slower, only to conclude in its usual hectic pace. It seems that during each session, the total number of bills introduced is amazingly close—approximately 1,200 bills, and on the average, 10% of those bills will relate directly or indirectly to medicine. Thus you can see that our Legislative Committee and especially our Legislative staff men, Gil Armstrong and Jerry Mahoney, had a burdensome task. That task was met, however, and we have now concluded what I consider to be a very successful session. A vast majority of the major bills which KMA supported became law, and the majority of the major bills which we opposed were defeated.

Contrary to what some of our perennial critics have to say, organized medicine does not assume a position of "negativism." This is evidenced by the fact that during this session (and for the past several sessions) KMA has supported more bills than we have opposed. I continue to be very proud of the honest, straightforward manner in which we present views and work for those principles in which we believe.

Our position on abortion as adopted by the House of Delegates was distributed verbatim to all Legislators early in the session, and that was our official statement and/or position of all the bills relative to abortion. Legislation to allow chiropractors to treat industrial injuries and be compensated for their services under Workman's Compensation was introduced again and passed the House by a 2 to 1 margin, but failed to get out of committee on the Senate side, and was therefore defeated. KMA did not introduce anti-chiropractic legislation this session.

Resolutions petitioning Congress to repeal PSRO were passed by both the House and the Senate with active KMA support.

Certainly we owe a debt of gratitude to our capable legislative staff men, Mr. Armstrong and Mr. Mahoney. They have long demonstrated their dedication and an undying willingness to work 10 to 18 hours per day (without additional compensation) to assure completion of their assignment. I sincerely hope that more and more physicians are becoming interested in legislative matters and will plunge themselves into involvement in our political process. For the next General Assembly, all 100 seats in the House and half of the Senate seats will be up for election. The time to become interested and involved is during the campaign—selecting, supporting, and electing the candidate of your choice. Such participation is vital to our democratic process and is essential for free medicine for the people of our Commonwealth.

Fred C Rainey



POSTGRADUATE OPPORTUNITIES



IN KENTUCKY

APRIL

- 19 2nd Memorial C. Dwight Townes Lecture-ship Series,** University of Louisville School of Medicine, Room 103, 9 a.m.-5 p.m., Louisville
- 20 Sports Medicine Symposium,** University of Louisville School of Medicine, Health Sciences Center auditorium, 8:30 a.m.-5 p.m., Louisville
- 20 Symposium on Diagnostic Cytology,** University of Louisville School of Medicine, Room 126, 10 a.m.-4 p.m., Louisville
- 22-23 Practice Management Workshop for New Physicians. Registration, \$35 for KMA members and \$60 for non-members. KMA Headquarters Office, Louisville.
- 25 Spring meeting, Kentucky Psychiatric Association, Spindletop Hall, Lexington

MAY

- 1-2 Annual Meeting, Kentucky ENT Society, Ramada Inn/Bluegrass Convention Center, Louisville.
- 1-3 Symposium on Bone and Joint Radiology*, University of Kentucky Medical Center, Lexington
- 9 Postgraduate Symposium on Rheumatic Diseases (10th Annual), Health Sciences Center, University of Louisville School of Medicine, Louisville
- 11 Symposium on Oral Cancer (11th Annual), University of Louisville School of Medicine, Health Sciences Center auditorium, Louisville
- 15-18 Annual Assembly, Kentucky Academy of Family Physicians, Ramada Inn/Bluegrass Convention Center, Louisville.
- 27-31 "Practical Therapeutics in Internal Medicine"*, University of Kentucky Medical Center, Co-sponsored by American College of Physicians, Lexington

*For further information contact Ronald D. Hamilton, M.D., Director, Continuing Education, College of Medicine, University of Kentucky, Lexington 40506

**For further information contact Gerald D. Swim, Director, Office of Continuing Education, University of Louisville School of Medicine, Health Sciences Center, Louisville, Kentucky 40201

- 28-30 International Symposium on Intestinal Absorption and Malabsorption,* University of Kentucky Medical Center; Registration: \$150; Lexington
- 30-31 Emergency Health Care Seminar, Ramada Inn/Bluegrass Convention Center, Louisville
- 31-June 1 Fourth Biennial Symposium, "Cancer in Women," and Annual Meeting of Kentucky Obstetrical and Gynecological Society, Galt House, Louisville

IN SURROUNDING STATES

APRIL

- 18 Postgraduate Symposium on Diabetes (7th Annual), 8:15 a.m.-4:45 p.m., presented by Diabetes Association and Department of Continuing Medical Education, University of Cincinnati Medical Center, Carrousel Inn, Cincinnati

MAY

- 8-9 Indiana Multidisciplinary Child Care Conference (9th Annual); Seminar topics: Pediatric hematology, neurology, gastroenterology, infectious diseases, and juvenile rheumatoid arthritis; Stouffer's Indianapolis Inn, Indianapolis. For further information: Morris Green, M.D., 1100 W. Michigan St., Indianapolis 46202.

SCHEDULE OF UPCOMING PROGRAMS ON NETWORK FOR CONTINUING MEDICAL EDUCATION

(For listing of stations, see October issue, page 676)

April 22-May 5

DIGITALIS: FRIEND OR FOE?, James E. Doherty, M.D., Professor of Cardiology, University of Arkansas, Little Rock.

HERPES SIMPLEX: CLUES FOR CLINICAL DIAGNOSIS, Richard C. Gibbs, M.D., Associate Professor of Clinical Dermatology, New York University Medical Center, New York.

THE TREATMENT OF ACNE, Paul Lazar, M.D., Associate Professor of Dermatology, Northwestern University School of Medicine, Chicago.



MATERNAL MORTALITY



From the Files of the KMA Maternal Mortality Study Committee

—Edited by John W. Greene, Jr., M.D.

Case 10-71: This 24-year-old married white gravida II, para I, had an expected delivery date in November, 1971. She had a normal vaginal delivery at this hospital August 9, 1969, delivering a 6 lb. 12 oz. girl. At this time her blood pressure was normal and the post partum course was uncomplicated, except for a 2+ albuminuria.

She had a normal prenatal course with her current pregnancy until approximately the 12th of October, 10 days prior to admission when she showed an elevation of her blood pressure 140/100 with 3+ albuminuria. She had no other symptoms at this time and was started on oral Unitensin. Six days later, when seen in the office, she complained of left lower quadrant abdominal pain, thinking that she was possibly in early labor. She was having an occasional uterine contraction. Blood pressure at this time was 160/100. She was observed. No definite cause for her lower quadrant pain could be determined and it was not associated with the irregular uterine contractions. The cervix was barely 2 cm dilated at that time. The following day she reported by phone that this pain was better but two days later she began to have severe abdominal pain and headaches. She was then admitted to the hospital.

At admission, 8:15 a.m., October 22, 1971, her blood pressure was 250/130. She had 4+ albuminuria. She received a quarter grain of Morphine and 2 cc of 50% Mag Sulfate I.M., ½ cc of Apresoline, I.M. Thirty minutes later her pressure was 188/128. Vaginal examination revealed the cervix thin, zero station, cephalic presentation. A Foley catheter was inserted. Urine (80 cc) was obtained and hourly checks revealed adequate urinary output with her output approximately 50 cc an hour. Repeat albumin was 2+. Her blood

pressure remained fairly stable at 150 to 160 with a diastolic pressure being 100 and 110. Her headache and the abdominal pain were relieved. Her condition was thought to be such that labor could be induced the following morning. She was checked again at 11:30 p.m. on the day of admission. Her blood pressure was 160/120 at that time. The I.V. Mag Sulfate had been ordered and was continued, 1000 cc of D5W with 20 grams of Mag Sulfate. Blood pressure remained fairly stable throughout the night and at 5:30 a.m. her pressure was 140/108.

At 6:20 a.m. the nurses noted that she was having some difficulty in respiration and some irregularity of her pulse. Respirations stopped, an emergency was called. Blood pressure was 70/40. Fetal heart tones were audible, her pupils were dilated and moderately fixed. It was decided to do an immediate cesarean section in an effort to deliver a living infant. She was taken to the operating room at 8 a.m. with general anesthesia, a living 4 lb. 2 oz. male infant was delivered, that breathed spontaneously. The uterus was closed in layers and the abdomen closed in layers; the patient was sent to ICU. Following the section, an EEG was obtained. This was reported as isoelectric. The patient showed a normal EKG. Her pulse was full but over the course of the next 30 hours her condition gradually deteriorated. Bundle branch block developed then complete block with death at 1:02 a.m. on October 25, 1971.

An autopsy was obtained. The final diagnosis was: (1) preeclampsia; (2) cerebral hemorrhage due to rupture of the left lenticulostriate arteries with an extensive destruction of the left basal ganglia and rupture into the ventricula system with compression of the fourth ventricle; (3) secondary

Maternal Mortality

severe pulmonary congestion and edema with patchy bronchopneumonia.

Comments

The Committee on Maternal Mortality classified this as a direct obstetrical, preventable death. The patient should have been hospitalized when the hypertension and albuminuria were first detected, ten days prior to admission. She should have been admitted to the hospital at that time and intensive therapy administered and delivery should have been effected within 24 to 48 hours after admission.

A FEW FACTS ON PHASE IV

From August, 1971 (the inception of the Economic Stabilization Program) through December, 1973:

- The "all items" (total) category of the Consumer Price Index (CPI) increased 13.3%.
- The "all services" category increased 11.2%.
- "Legal fees" increased 26.2%.
- The total "medical care" category increased 8.7%.
- "Physician fees," however, increased only 7.3%.

There is an immediate and urgent need for medical organizations and individual physicians to write their Representatives and Senators in Congress to reinforce their opposition to the discriminatory continuance of wage and price controls on health as established under the Economic Stabilization Act beyond April 30, 1974. Letters should be sent to the ranking members of the Senate Committee on Banking, Housing and Urban Affairs and the House Banking and Currency Committee who will be considering this proposed extension soon.

PRESCRIBING INFORMATION
Antiminth (pyrantel pamoate) Oral Suspension
Actions. Antiminth (pyrantel pamoate) has demonstrated anthelmintic activity against *Enterobius vermicularis* (pinworm) and *Ascaris lumbricoides* (roundworm). The anthelmintic action is probably due to the neuromuscular blocking property of the drug.

Antiminth is partially absorbed after an oral dose. Plasma levels of unchanged drug are low. Peak levels (0.05-0.13 µg/ml.) are reached in 1-3 hours. Quantities greater than 50% of administered drug are excreted in feces as the unchanged form, whereas only 7% or less of the dose is found in urine as the unchanged form of the drug and its metabolites.

Indications. For the treatment of ascariasis (roundworm infection) and enterobiasis (pinworm infection).

Warnings. *Usage in Pregnancy:* Reproduction studies have been performed in animals and there was no evidence of propensity for harm to the fetus. The relevance to the human is not known.

There is no experience in pregnant women who have received this drug.

Precautions. Minor transient elevations of SGOT have occurred in a small percentage of patients. Therefore, this drug should be used with caution in patients with pre-existing liver dysfunction.

Adverse Reactions. The most frequently encountered adverse reactions are related to the gastrointestinal system.

Gastrointestinal and hepatic reactions: anorexia, nausea, vomiting, gastralgia, abdominal cramps, diarrhea and tenesmus, transient elevation of SGOT.

CNS reactions: headache, dizziness, drowsiness, and insomnia. Skin reactions: rashes.

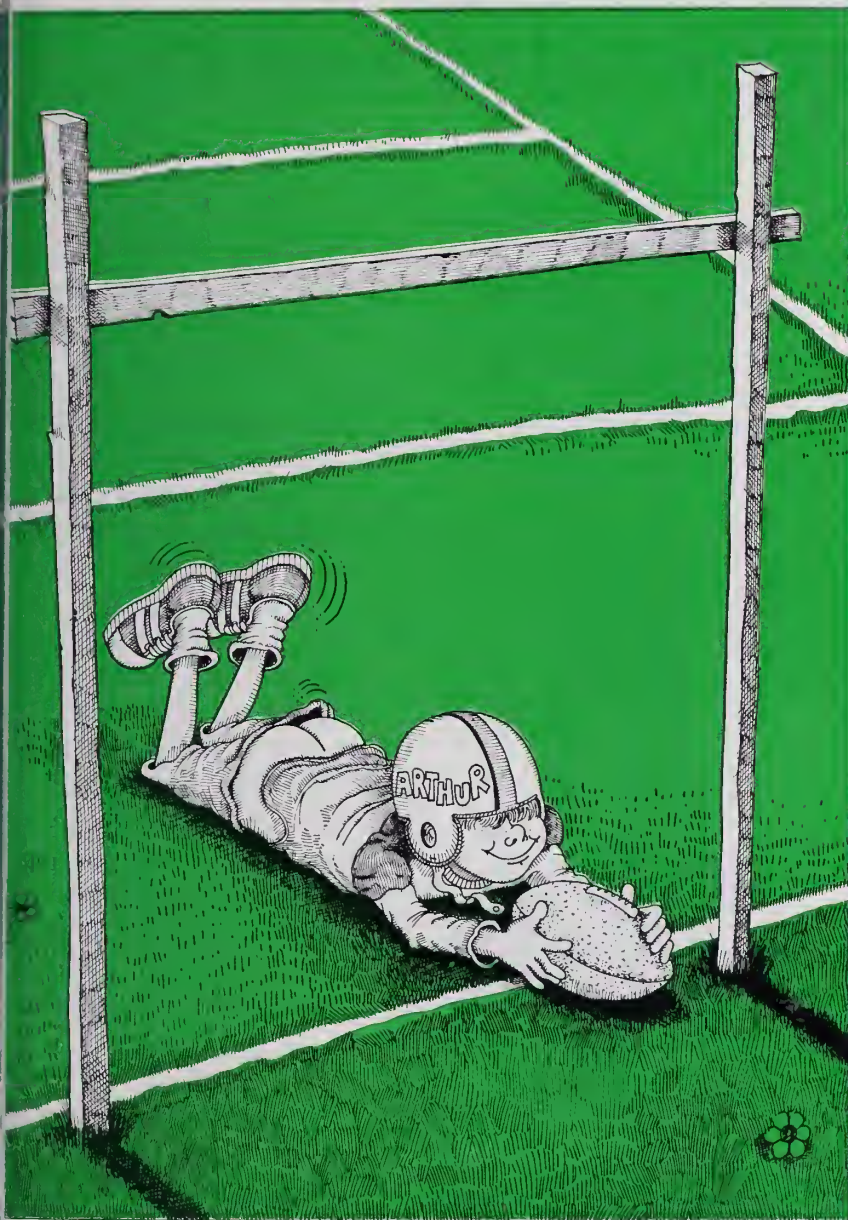
Dosage and Administration. *Children and Adults:* Antiminth Oral Suspension (50 mg. of pyrantel base/ml.) should be administered in a single dose of 11 mg. of pyrantel base per kg. of body weight (or 5 mg./lb.); maximum total dose 1 gram. This corresponds to a simplified dosage regimen of 1 cc. of Antiminth per 10 lb. of body weight. (One teaspoonful = 5 cc.)

Antiminth (pyrantel pamoate) Oral Suspension may be administered without regard to ingestion of food or time of day; and purging is not necessary prior to, during, or after therapy. It may be taken with milk or fruit juices. Because of limited data on repeated doses, no recommendations can be made.

How Supplied. Antiminth is available as a pleasant tasting caramel-flavored suspension which contains the equivalent of 50 mg. pyrantel base per ml., supplied in 60 cc. bottles.

ROERIG 
A division of Pfizer Pharmaceuticals
New York, New York 10017

WORMS BLITZED



A single dose of Antiminth (1 cc. per 10 lbs. of body weight, 1 tsp./50 lbs. — maximum dose, 4 tsp.=20 cc.) offers highly effective control of *both* pinworms and roundworms.

Antiminth has been shown to be extremely well tolerated by children and adults alike in clinical studies.* Pleasantly caramel-flavored, it is non-staining to teeth and oral mucosa on ingestion... doesn't stain stools, linen or clothing.

One prescription can economically treat the entire family.

ROERIG **Pfizer**

A division of Pfizer Pharmaceuticals
New York, New York 10017

**Pinworms, roundworms controlled
with a single, non-staining dose of**

ANTIMINTH[®]
(pyrantel pamoate)

equivalent to 50 mg. pyrantel/ml.

ORAL SUSPENSION

The more physicians consider the hemodynamics of lowering blood pressure...

Most physicians now agree on the importance of reducing blood pressure in the hypertensive patient. But high blood pressure exists, of course, only as part of a complete clinical picture. The hemodynamic profile of well-established essential hypertension is characterized by elevated arterial blood pressure, normal cardiac output, and increased total peripheral resistance.

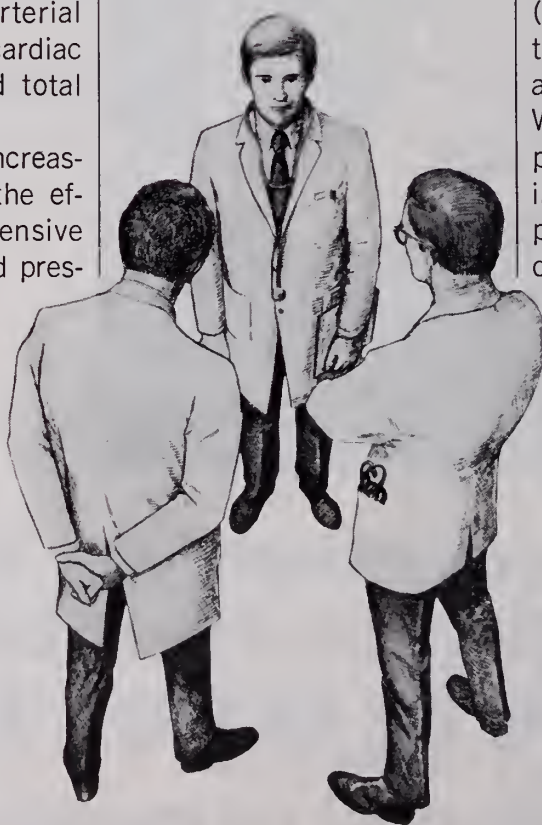
And so, physicians are increasingly concerned with the effects of an antihypertensive agent not only on blood pres-

sure itself but also on the hemodynamic pattern—in short, with the total effect of the drug. *Does it indeed help lower blood pressure effectively? Is peripheral resistance reduced? Are cardiac output and renal functions main-*

tained? And, also, is there likely to be drug-induced postural hypotension serious enough to pose a threat to the patient's cerebrovascular status?

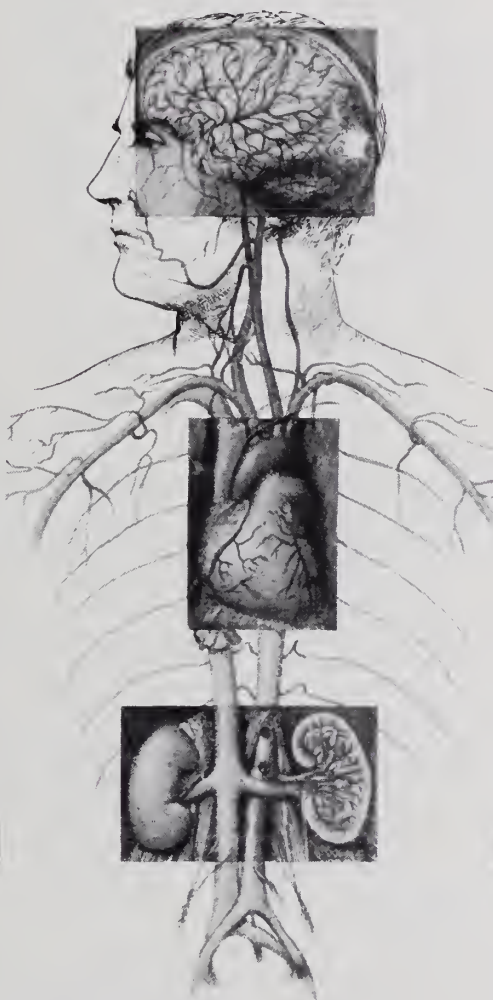
With this emphasis on overall drug performance has come a growing reliance on ALDOMET® (Methyldopa, MSD) in the treatment of sustained moderate hypertension.

With its unique hemodynamic profile, ALDOMET has drawn increasing attention and approval from physicians. First, of course, for its efficacy in



the more physicians rely on this unique antihypertensive

...ing blood pressure. But
...are other considerations
...ell. Cardiac output is usu-
...maintained with no cardiac
...eleration; in some patients
...heart rate is actually
...ed. Peripheral resistance
...apparently reduced.
...OMET does not usually
...romise existing renal
...ction; it generally does not
...uce renal blood flow, glo-
...ular filtration rate, or fil-
...on fraction. And ALDOMET
...ally does not cause sympto-
...ic postural or exercise
...tension.



Some patients on continuous methyldopa therapy may develop a positive direct Coombs test. For more details, see the brief summary of prescribing information.

Contraindicated in active hepatic disease and known sensitivity to the drug. Not recommended in pheochromocytoma or pregnancy. It should be used with caution in patients with a history of liver disease or dysfunction. Discontinue the drug if fever, abnormal liver function, jaundice, or acquired hemolytic anemia occurs.

In most cases of sustained moderate hypertension

TABLETS, 250 mg

ALDOMET[®]

(METHYLDOPA | MSD)

smoothly lowers blood pressure

For a brief summary of prescribing information, please see following page.

In most cases of sustained moderate hypertension

TABLETS, 250 mg

ALDOMET[®]

(METHYLDOPA | MSD)

smoothly lowers blood pressure

Contraindications: Active hepatic disease, such as acute hepatitis and active cirrhosis; known sensitivity. Not recommended in pheochromocytoma. Unsuitable in mild or labile hypertension responsive to mild sedation or thiazide therapy. Use cautiously in patients with history of previous liver disease or dysfunction.

Warnings: Acquired hemolytic anemia has occurred rarely in association with therapy with methyldopa. Should clinical symptoms indicate the possibility of anemia, hemoglobin and/or hematocrit determinations should be performed. If anemia is present, appropriate laboratory studies should be done to determine if hemolysis is present. Evidence of hemolytic anemia is an indication for discontinuation of the drug. Discontinuation of methyldopa alone or the initiation of adrenocortical steroids usually results in a prompt remission of the anemia. Rarely, however, fatalities have occurred.

Some patients on continued therapy with methyldopa develop a positive direct Coombs test; incidence reported has averaged between 10% and 20%. It rarely occurs in first six months of therapy, and if not seen within twelve months, is unlikely to develop with continued administration. Positive Coombs test is dose-related; lowest incidence occurs in patients on 1 g methyldopa or less per day. Reversal of the positive Coombs test occurs within weeks to months after discontinuation of methyldopa. Prior knowledge of a positive Coombs reaction aids in evaluation of cross match for transfusions. Patients with positive Coombs tests at time of cross match may exhibit incompatible minor cross match. When this occurs, an indirect Coombs test should be performed. If negative, transfusion with blood otherwise compatible in the major cross match may be carried out. If positive, advisability of transfusion with blood compatible in major cross match should be determined by hematologist or expert in transfusion problems.

Fever has occurred within first three weeks of therapy, sometimes with eosinophilia or abnormalities in liver function tests, such as serum alkaline phosphatase, serum transaminases (SGOT, SGPT), bilirubin, cephalin cholesterol flocculation, prothrombin time, and bromsulphalein retention. Jaundice, with or without fever, may occur, with onset usually in the first two to three months of therapy. Rare cases of fatal hepatic necrosis have been reported. Liver biopsy in several patients with liver dysfunction has shown microscopic focal necrosis compatible with drug hypersensitivity. Rarely, reversible reduction in leukocyte count with primary effect on granulocytes has been seen; reversible agranulocytosis has been reported. Methyldopa may interfere with measurement of creatinine by alkaline picrate method and of uric acid by photungstate method. When used with other antihypertensive drugs, potentiation of antihypertensive action may occur.

Usage in Pregnancy and Childbearing Age—Not

recommended in pregnancy. In women of child-bearing age, weigh potential benefits against possible fetal hazards.

Precautions: Perform periodic hepatic function tests and white cell and differential blood counts during first six to twelve weeks of therapy or in unexplained fever. Discontinue if fever, abnormalities in liver function tests, or jaundice appears. Since methyldopa causes fluorescence in urine samples at the same wavelengths as catecholamines, spuriously high levels of urinary catecholamines may be reported. This will interfere with the diagnosis of pheochromocytoma. Discontinue drug if involuntary choreoathetotic movements occur in patients with severe bilateral cerebrovascular disease. Anesthetics requirements may be reduced; hypotension occurring during anesthesia usually can be controlled with vasopressors. Hypertension may occur after dialysis because methyldopa is removed by this procedure.

Dosage should be limited initially to 500 mg daily when following previous antihypertensive agents other than thiazides. Do not exceed recommended daily dose of 3.0 g. Patients with impaired renal function may respond to smaller doses than patients with normal kidney function. Syncope in older patients has been related to increased sensitivity in those with advanced arteriosclerotic vascular disease; this may be avoided by lower doses. Tolerance occasionally seen either early or late, but more likely between second and third month after initiation of therapy; increased dosage or combined therapy with a thiazide frequently restores effective control.

Adverse Reactions: Sedation, usually transient, may be seen during initial therapy or when dosage is increased. Headache, asthenia, or weakness may be noted as early, transient symptoms. Symptoms associated with effective lowering of blood pressure, including dizziness, lightheadedness, and symptoms of cerebrovascular insufficiency, are seen occasionally. Angina pectoris may be aggravated. Symptoms of orthostatic and exercise hypotension may occur; if symptoms occur, reduce dosage. Bradycardia, nasal stuffiness, mild dryness of mouth, and gastrointestinal symptoms including distension, constipation, flatus, and diarrhea occur occasionally; these can be relieved by reducing dosage. Nausea and vomiting have been reported in only a few patients. Sore tongue or "black tongue," pancreatitis, and inflammation of salivary glands may occur.

Weight gain and edema occur infrequently; if edema progresses or signs of pulmonary congestion appear, discontinue drug. Rarely, urine exposed to air may darken due to breakdown of methyldopa or its metabolites. Other rare reactions include breast enlargement, lactation, impotence, decreased libido, skin rash, mild arthralgia, myalgia, paresthesias, parkinsonism, psychic disturbances including nightmares, reversible mild psychoses or depression, reversible thrombocytopenia, drug-related fever and abnormal liver function studies with jaundice and hepatocellular damage (see **Warnings** and **Precautions**), rise in BUN, and a single case of bilateral Bell's palsy.

Supplied: Tablets, containing 250 mg methyldopa each, in single-unit packages of 100 and bottles of 100 and 1000.

For more detailed information, consult your MSD representative or see full prescribing information. Merck Sharp & Dohme, Division of Merck & Co., Inc., West Point, Pa. 19486

ADDENDUM

Let's make blood pressure "required reading" for all physicians.

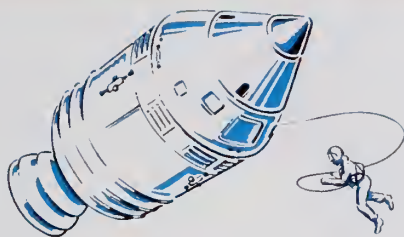
With recent estimates that at 23 million Americans have high blood pressure—and that half of them are not even aware of it—detection of the problem in asymptomatic persons has become an issue of national importance.

Family physicians are being urged to take blood pressure readings as a matter of office routine, regardless of the presenting complaint or the reason for the visit. And because many people do not see a family physician for relatively long periods of time, some experts are suggesting that ophthalmologists, gynecologists, dermatologists, orthopedists, psychiatrists, dentists, school nurses, family planning counselors, and other health-care personnel make blood pressure reading a routine part of every examination or consultation.

Of course, a diagnosis of hypertension cannot be made on the basis of a single reading, but routine blood pressure readings can uncover potential trouble in a certain proportion of patients. And when trouble is suggested, further evaluation can be pursued more effectively.



Blood pressure "required reading" for all physicians.



Man in space, now fait accompli, re-emphasizes the importance of Uro-Phosphate therapy. Research into the effect of space travel on the astronaut reveals that weightlessness causes loss of bone calcium. As the bones are required to bear less and less of the weight of the body they lose calcium, increasing the calcium content of the urine. When physical activity is reduced, the acidity of the urine should be adjusted to keep increased calcium in solution . . . a prophylaxis to prevent kidney or bladder calculi.

Uro-Phosphate®

NOW A SUGAR-COATED TABLET

Each tablet contains: METHENAMINE, 300 mg.; SODIUM ACID PHOSPHATE, 500 mg.

Uro-Phosphate gives comfort and protection when inactivity causes discomfort in the urinary function. It keeps calcium in solution, preventing calculi; it maintains clear, acid, sterile urine; it encourages

complete voiding and lessens frequency when residual urine is present.

Uro-Phosphate contains sodium acid phosphate, a natural urinary acidifier. This component is fortified with methenamine which is inert until it reaches the acid urinary bladder. In this environment it releases a mild antiseptic keeping the urine sterile.

Uro-Phosphate is safe for continuous use. There are no contra-indications other than acidosis. It can be given in sufficient amount to keep the urine clear, acid and sterile. A heavy sugar coating protects its potency.

Dosage:

For protection of the inactive patient 1 or 2 tablets every 4 to 6 hours is usually sufficient to keep the urine clear, acid and sterile.

2 tablets on retiring will keep residual urine acid and sterile, contributing to comfort and rest.

A clinical supply will be sent to physicians and hospitals on request.



WILLIAM P. POYTHRESS & COMPANY, INC., RICHMOND, VIRGINIA 23217

Manufacturers of Ethical Pharmaceuticals

The Rx that says "Relax"



BUTISOL Sodium provides highly predictable sedation; minor dosage adjustments are usually all that's needed to produce the desired degree of sedation. (With 3 dosages and 4 strengths to make adjustments easy.)

BUTISOL Sodium offers prompt, smooth, relatively non-cumulative action: begins to work within 30 minutes because of its intermediate rate of metabolism, generating neither a "roller-coaster" nor a "hangover" effect.

BUTISOL Sodium is remarkably well tolerated: a 30-year safety record assures you that there is little of unexpected reactions.

BUTISOL Sodium saves your patients money: costs less than half as much as most commonly prescribed sedative tranquilizers.*

These are four good reasons for prescribing BUTISOL Sodium for the many patients who need to have the pain just a little slower. Its gentle daytime sedative action is all that's needed to help the usually well-adjusted patient cope with temporary stress.

*Based on surveys of average daily prescription costs.

Butisol 
(SODIUM BUTABARBITAL)

Contraindications: Sensitivity or idiosyncrasy to barbiturates; history of manifest or latent porphyria or marked liver impairment; respiratory distress with dyspnea or obstruction; history of addiction to sedative/hypnotic drugs; uncontrolled pain, to avoid because of possible excitement.

Precautions: Exercise caution in: moderate to severe hepatic disease; anticoagulant therapy, because of possible increased metabolism of anticoagulants; withdrawal in drug dependence or the taking of excessive doses over a long period, to avoid withdrawal symptoms; elderly or debilitated patients, to avoid possible marked excitement or depression; use with other CNS depressants, because of combined effects.

Adverse Reactions: Slight hangover, drowsiness, lethargy, headache, skin eruptions, nausea and vomiting, hypersensitivity reactions (especially with asthma, urticaria, angioneurotic edema, or similar conditions).

Usual Adult Dosage: For daytime sedation, 15 mg. to 30 mg. t.i.d. or b.i.d. For hypnosis, 50 mg. to 100 mg.

Available as: Tablets, 15 mg., 30 mg., 50 mg., 100 mg.; Elixir, 30 mg. (alcohol 7%). BUTICAPS® [Capsules BUTISOL Sodium (sodium butabarbital)] 15 mg., 30 mg., 50 mg., 100 mg.

McNEIL

McNeil Laboratories, Inc., Fort Washington, Pa. 19034

© McN 1971



Blue Shield of Kentucky 1973 Report

(as of 12/31/73)

Membership

	<u>1973</u>	<u>1972</u>
Total Membership.....	1,295,571	1,229,268
Net Enrollment Gain (Members).....	66,303	80,708
Percent of Net Increase.....	5.39%	7.02%
New Employee Groups Enrolled.....	1,333	1,191

Claims Experience

<u>Type of Contract</u>	<u>Number of claims paid</u>		<u>Amount paid for Member Services</u>	
	<u>1973</u>	<u>1972</u>	<u>1973</u>	<u>1972</u>
Indemnity.....	293,030	259,114	\$12,534,953	\$11,447,309
Usual, Customary and Reasonable.....	*194,090	162,538	8,560,337	7,348,461
Champus.....	14,562	15,375	1,305,846	1,336,598
Extended Benefits, BCBS Medicare Supplement, Major Medical and F.E.P. Supplemental.....	129,756	102,118	5,741,646	4,915,391
Grand Totals.....	631,438	539,145	\$28,142,782	\$25,047,759

*310 claims, representing sixteen-one hundredths of 1% of claims submitted required Peer Review.

**Blue Shield
of Kentucky**



Helping Kentuckians Prepay
The Cost of Health Care

Kentucky Physicians Mutual, Inc.
3101 Bardstown Road Louisville, Ky. 40205 (502) 452-1511

®' National Association of Blue Shield Plans

new

DARVOCETIN[®]

50 mg. propoxyphene napsylate
and 325 mg. acetaminophen

Lilly
TABLETS

Additional information available to the profession on request.
Eli Lilly and Company, Indianapolis, Indiana 46206

300104

The JOURNAL of the Kentucky Medical Association

ISSUED MONTHLY UNDER THE DIRECTION OF THE BOARD OF TRUSTEES

VOLUME 72

APRIL 1974

No. 4

Use of The Flexible Fiberoptic Colonoscope†

PATRICK HAGIHARA, M.D. AND WARD O. GRIFFEN, JR., M.D., Ph.D.

Lexington, Kentucky

The flexible fiberoptic colonoscope is a valuable diagnostic and therapeutic tool.

Its uses and limitations are discussed.

HIRSCHOWITZ and his colleagues^{9, 10} were the first to report on the clinical application of flexible fiberoptic endoscopy, successfully examining the esophagus, stomach, and duodenal bulb. Overholt¹⁵ in this country, and Matsunaga¹² and Niwa¹⁴ in Japan, were some of the earliest users of the flexible fiberoptic colonoscope. Although current models are extremely versatile, development is continuing. ACMI and Olympus instruments are the two most widely used and each company has its strong proponent. Eddy⁵ prefers the ACMI colonoscope, while Shinya^{17, 19} uses Olympus equipment exclusively. Both companies manufacture long-length and medium-length colonoscopes. The longer scope can reach the ileocecal valve, and the medium length one, the left transverse colon. The Olympus medium length colonoscope (MB) is the type used in this report.

The flexible fiberoptic colonoscope has these features:

- a) A distal lens system.
- b) A bundle of optical fibers which transmit the image; each fiber in the bundle is oriented in the same relationship to the others at both ends.
- c) A bundle of fibers which transmit light.

d) A channel for suction, through which a snare, biopsy capsule, or brush for collection of cytologic specimens can be inserted.

e) A channel for irrigation or air insufflation.

f) A proximal control house for manual deflection of the flexible tip of the scope, ends of the channels described above, and an eye piece for visualization.

A cold light source is an essential part of the equipment.

Preparation of Patients for Colonoscopy

Unlike the sigmoidoscope, even small particles may completely obstruct the view. The suction channel can also be obstructed easily by particulate matter. If few in number, these fecal particles may be dislodged from the distal end of the scope by forcefully introducing an irrigating fluid through the suction channel.

Ideally the colon should be completely free of fecal matter. Any combination of thorough cleansing techniques should suffice. We usually place patients on a clear liquid diet for two days, followed by six Dulcolax tablets in the afternoon of the day prior to colonoscopy. Nothing is given by mouth after midnight. In the morning, the patient receives sufficient saline enemas for returns to be clear on two occasions. For colonoscopic polypectomy, oral antibiotics are added. The schedule is not rigid and is modified according to the condition of the patient. Patients having diarrhea may not need any preparation depending upon the diagnostic possibilities.

†From the Department of Surgery, University of Kentucky College of Medicine, Lexington

Any combination of sedation should be satisfactory. One should not depend upon excessive sedation to ascertain the limits of manipulation of the colonoscope. On the other hand, if the patient is exceedingly sensitive to pain, the colonoscopy may be conducted under general anesthesia, although this was necessary only once in this series. An antimuscarinic drug may be necessary in some cases.

Introduction of the Colonoscope and Anatomical Orientation

Colonoscopy may be performed in any position. If the patient cannot be moved, colonoscopy may be done in bed in the supine position. The most satisfactory initial position is left lateral decubitus on a tilt table. The insertion is relatively easy up to the sigmoid. A sharp curve of the sigmoid, especially when fixed, renders the insertion quite difficult despite the visualization of the lumen proximally. When difficulty arises, a combination of maneuvers helps, including downward tilting of the head of the table, advancement of the scope with simultaneous twisting of the scope and deflection of the tip, changing of the patient's position, and manipulation of the abdomen. As long as the mucosa slides by the objective easily, the scope may be advanced.

It is of some help to be familiar with the anatomy of the colon as it appears from the luminal side. The rectum is familiar to anyone and poses no difficulty. The sigmoid is identified by its position above the rectum and its tortuosity. Higher up, the lumen becomes somewhat narrower, straight, and can be visualized for a long distance. The examination of the sigmoid is incomplete without visualization of the descending colon. As the scope is advanced (at times Trendelenburg position facilitates the advance), the splenic flexure should come into view. This is seen as a sudden turn (Fig. 1), and while the scope is in the descending colon, the bowel telescopes onto the end of the scope with each deep inspiration. The flexure may be negotiated with the various aforementioned maneuvers. Changing the patient's position to the right lateral decubitus in Trendelenburg at times makes a great difference. The so-called α maneuver of uncoiling the scope in the sigmoid may add to the length of the scope and facilitate the advance

by decreasing the resistance resulting from the sigmoidal curve.¹⁶ Ordinarily, the transverse colon is characterized by more accentuated haustration with folds which appear triangular on less than full air insufflation (Fig. 2). From the luminal side, the transverse colon curves gently and swings in a pendular or side-to-side motion with respiration. When the transverse colon is thus visualized beyond the splenic flexure, what was initially thought to be the descending colon is confirmed.

No one can be absolutely sure where the scope is, especially in cases of unusual anatomy or following intra-abdominal operations. If there is an absolute need to determine the location of pathology that one sees via a colonoscope, a spot film may be taken with an injection of a contrast dye through the colonoscope. Colonoscopy is usually done in conjunction with barium enema and the location of the lesion visualized through the colonoscope usually poses no problem. However, questionable lesions, some narrowing, etc., cannot be accurately resolved when the colonoscope fails to enter identifiable anatomical segments of the colon.

For a complete study of the colon, the ileocecal valve should be visualized; in many cases such a maneuver may not be necessary or desirable. For excision of an isolated polyp in the sigmoid colon, clearly visualized by barium enema, the ileocecal valve need not be visualized. Most polyps are located on the left side of the colon. For an investigation of ischemic colitis following abdominal aneurysm resection, there is no need to insert proximal to the splenic flexure. For a therapeutic detortion of a sigmoid volvulus, decompression and visualization of the obstructed colon is all that is necessary.

Successful insertion of the colonoscope to any point improves with experience. Shinya maintains he can successfully enter the transverse colon in 70% and the ascending colon in 60% of the cases attempted.¹⁹ We have been able to pass the medium length colonoscope into the left transverse colon in 70% of cases attempted. However, in the remaining 30%, about half had some condition precluding advancement. Once the splenic flexure has been negotiated, the scope could usually be passed

into the ascending colon; to do this, however, a long colonoscope is necessary.

Photography and Recording of Lesions Visualized

Satisfactory photographs of lesions seen through the colonoscope may be taken and recorded. Photography through a proctoscope has been difficult and cumbersome, requiring considerable skill and expensive equipment. Many pathologic changes seen at the anal margin and within the reach of the proctoscope may be easily recorded with colonoscopic photography (Fig. 3).

Diagnostic Use

Lesions in the colon may be visualized, photographed, and biopsied. Some suspicious lesions by barium enema may be clarified with the colonoscope. Of considerable value is its use in the evaluation of an anastomotic site beyond the reach of the sigmoidoscope. Figure 4 is an illustration of such a case. The patient had an abdominoperineal resection for an adenocarcinoma of the rectum followed some time later by right hemicolectomy for another malignancy. A subsequent barium enema was non-diagnostic. He had, however, microcytic hypochromic anemia. A colonoscopic biopsy of the anastomotic site revealed adenocarcinoma.

One of the important uses of colonoscopy may be characterization of the various colitides. Patients may have severe diarrhea but without a finding on barium enema or proctoscopy. Colonoscopy may demonstrate definite lesions. In others, only small bowel involvement may be suspected by conventional investigations. Colonoscopy may reveal subtle changes in the colon (Fig. 5a and 5b). In some cases, changes are seen in the colon on barium enema and proctoscopy may reveal no change or changes too small and indefinite to warrant disease definition. In these cases, short of colectomy, the diagnosis, whether Crohn's disease, chronic ulcerative colitis, or ischemic colitis, may be only speculative. In these cases, colonoscopy may play a decisive role by extending the reach of the proctoscope and obtaining a clearer visualization of such minor but definitive changes.

In many cases, the distinction between mild total ulcerative colitis, proctosigmoiditis, or

simply proctitis, is quite difficult on the basis of barium enema and proctoscopy. Colonoscopy may clearly define an upper limit of involvement, detect a total involvement, or large areas of sparing (Fig. 6), in which total involvement has been previously suspected.

In long-standing, mildly symptomatic cases of chronic ulcerative colitis, the question of proctocolectomy always arises. Subjecting all these patients to surgery seems unreasonable. Selection is quite in order. However, which patients to select for surgery, except for clearly known surgical indications, is not definitely resolved.^{2, 13} Periodic total colonoscopy and documentation of involvement in each case on a long term basis may one day make precise selection possible.

Crohn's colitis does not carry a cancer potential. In many cases the diagnosis of Crohn's disease of the colon is made in the absence of granulomas and small bowel involvement.^{8, 11} Following a total proctocolectomy, discussion of its true nature and potential is academic. However, in those cases diagnosed clinically and not subjected to operative intervention, periodic total colonoscopy may define its natural history and whether it differs from that of chronic ulcerative colitis. In Crohn's colitis without involvement of the small bowel and rectum by conventional investigation, ileoproctostomy has been performed. Although quite small in number in proportion to the total cases of Crohn's disease encountered,^{1, 4, 6} long follow-up revealed disturbingly high recurrence rates especially at the anastomotic site. Whether this is due to previously unrecognized disease in the retained rectum is not clear. Colonoscopy would be useful in these cases since it can identify minimal changes which may not be obvious with the proctoscope. Following ileoproctostomy, the patients may be followed with periodic colonoscopy to ascertain the basis of recurrence. Selective biopsies of questionable areas will augment colonoscopic observations.

Colonoscopy is quite useful in the diagnosis of ischemic colitis. In spontaneous ischemic colitis, frequently centering on splenic flexure, the rectum is usually spared and the sigmoidoscope may not reach the lesion. Barium enema may not be specific. Colonoscopy may render a definite diagnosis. When ischemic colitis is

suspected in patients following abdominal aneurysm resection and placement of aortoiliac graft, the colonoscopic examination may be easily performed in the supine position in bed and thorough examination still achieved (Fig. 7). The scope should be removed quickly when the diagnosis is established and especially when the involvement is severe. In these cases, barium enema may be neither desirable nor helpful.

During an operative procedure, the colonoscope may be threaded with a surgeon manipulating the tip for easy intraoperative visualization. This may be especially helpful with an irrigating catheter in previously non-localized colonic hemorrhage.

Therapeutic Use

Probably the greatest therapeutic advance accompanying the clinical introduction of the colonoscope is polypectomy. Polyps amenable to proctoscopic removal do not pose problems. Laparotomy for colotomy and polypectomy is associated with an average mortality rate of 1.8%.¹⁸ There are frequently situations in which the operative risk is greatly increased. Moreover, colotomy and polypectomy may entail significant risk of postoperative morbidity. Thus, operative removal of a polypoid lesion visualized on barium enema depends upon the probability of the lesion being an invasive carcinoma.⁷ To reduce risk further, the so-called Benjamin procedure was conceived;³ polypectomy is performed through a sigmoidoscope, while another operator through an abdominal incision telescopes the colon to the sigmoidoscope. Thus, colotomy is avoided.

These considerations attending polypectomies have been altered by the colonoscope. Polypoid lesions, inaccessible by conventional means, may now be directly visualized, biopsied, or removed if possible. Most polypoid lesions on a stalk are benign. These can be removed by snare-cautery polypectomy. There are some technical considerations. Adequate gas exchange must be performed before cautery to rid the bowel of inflammable gas. Snaring (Fig. 8a and 8b) may be achieved by a combination of maneuvers including timely deflection of the flexible tip. Care must be taken not to perforate the bowel with the tip of the snare. The polypectomy should be

performed with mild to moderate distention of the segment of the colon. The properly placed snare should be deflected into the middle of the lumen to avoid cauterizing the colonic wall.

Surprisingly good results may be obtained with experience. Shinya reported over 800 colonoscopic polypectomies without complication, except one who bled from the polypectomy site and received 2 units of whole blood.¹⁷ When carefully performed, the complication rate is low; however, perforations and bleedings are known to have occurred with attempted polypectomies in other hands. Our series is quite early. Twenty polypectomies up to the descending colon have been performed; in one patient the tissue was lost and bleeding occurred from the polypectomy site, requiring 2 units of whole blood in transfusion. The size of the excised polyps ranged up to 3 cm in diameter. Three polyps could not be snared for removal.

The potential use of the colonoscope in the reduction of sigmoid volvulus is yet to be extensively applied. Emergency operative intervention in volvulus is associated with a high operative mortality. Recently, a cretin who had had many abdominal procedures entered the University of Kentucky Medical Center with a recurrent sigmoid volvulus. It could not be reduced by proctoscope or barium enema (Fig. 9). A colonoscope was easily threaded through the obstruction, and the twisted lumen as well as the proximal distended colon were completely visualized. Easy reduction was achieved under direct vision. The patient was operated upon electively.

Limitation

The colonoscope may not be successfully inserted in all cases. With experience, the success rate improves. Although the colonoscope is much more useful, versatile, and safer than the proctoscope, great care and judgment are necessary in inflammatory or ischemic disease of the colon. Use of force and intracolonic introduction of air should be minimal. Colonoscopic attempts at differential diagnosis between carcinoma and diverticulitis have been disappointing. These accounted for more than half of the cases in which the colonoscope could not be advanced. In most of these cases, the colonoscope could be threaded only to the

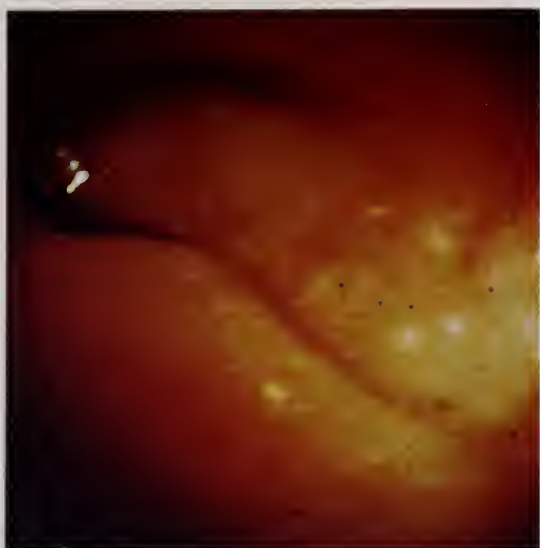


FIG. 1 A sudden turn is seen at the splenic flexure proximal to a long straight course.

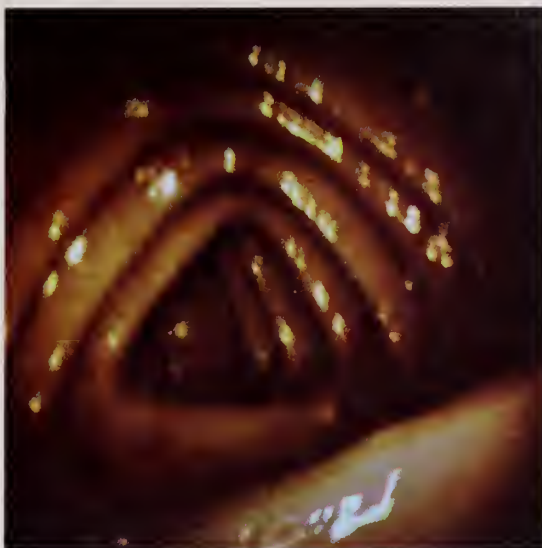


FIG. 2 Haustral folds are accentuated and describe a triangular shape on less-than-full air insufflation.

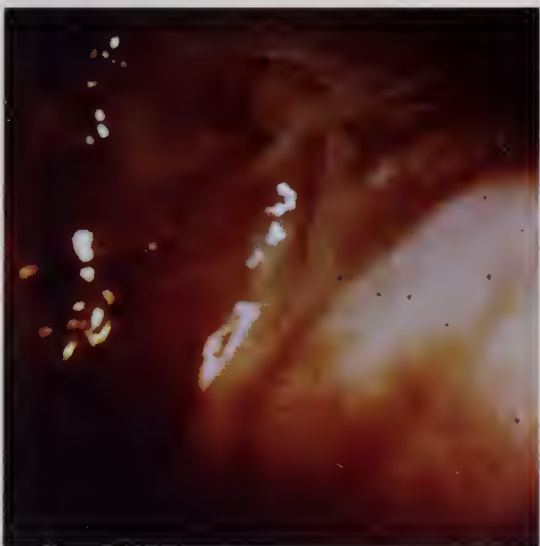


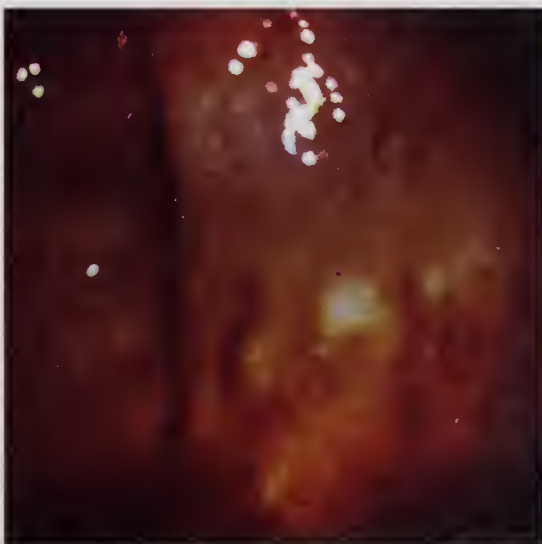
FIG. 3 This patient had an active pulmonary tuberculosis and was operated on twice for so-called anorectal abscesses. A closer inspection of the anus reveals unusual characteristics. Biopsies of the anal lesion established the diagnosis of tuberculosis.

(top right)

FIG. 4 Nodular growths are seen at the anastomotic site. Biopsy revealed recurrent adenocarcinoma.

(to right)

FIG. 5a This patient had a change compatible with a Crohn's disease in the terminal ileum. Barium enema was otherwise negative. Colonoscopy revealed isolated minimal changes from the 15 cm level to the splenic flexure. At 60 cm from the anal verge, an isolated area with mucosal changes including small abscesses was seen.



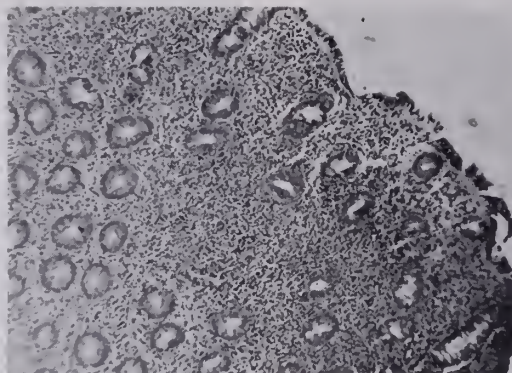


FIG. 5b Biopsy revealed microscopic changes of colitis.

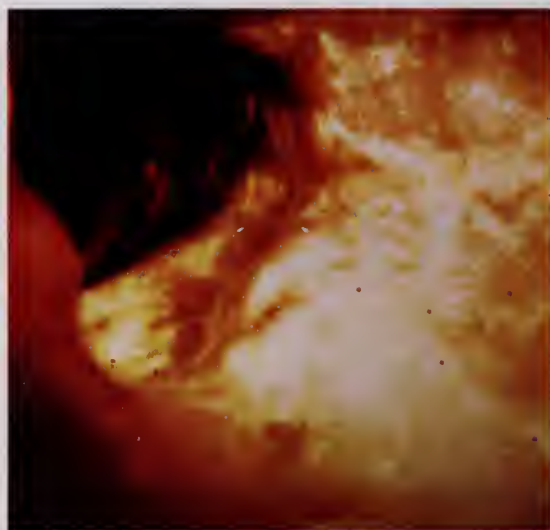


FIG. 6 A transition from a large area of normal looking mucosa to an abnormal area at the splenic flexure. Proximally, the left transverse colon showed involvement.



FIG. 7 At 30 cm from the anal verge, mucosa looks gangrenous on one side. More proximally, the mucosa showed gangrenous changes throughout with ulcerations.



FIG. 8a A polyp with a stalk.

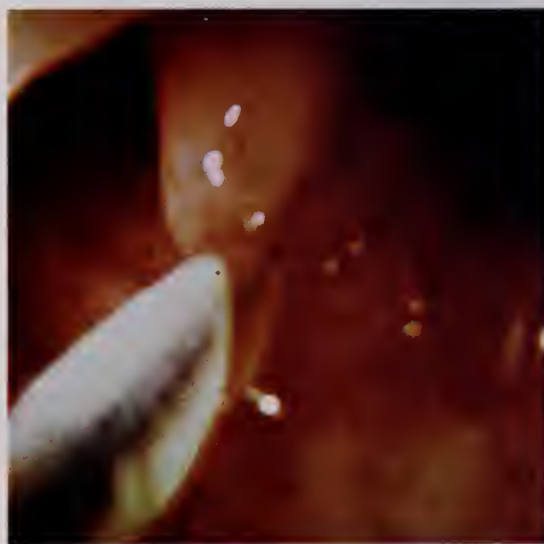


FIG. 8b A snare is around the stalk and the snare is guided away from the colonic wall.



FIG. 9 Barium enema with a typical sign of volvulus of the sigmoid.

narrowed segment and adequate biopsy material could not be obtained. With a colonoscope of a smaller caliber the differential diagnosis may be more easily made. In cases of large carcinomas in the colon, colonoscopy may not be easily achieved, whereas, barium enema may clearly delineate the proximal colon.

Nonoperative colonoscopy has not been proved to be useful in diagnosis of acute bleeding. The lens is easily clouded by blood

and the suction channel is easily occluded. This does not preclude its usefulness following the cessation of bleeding. The control of hemorrhage through the colonoscope is indeed difficult when bleeding of significant degree occurs during a polypectomy. Biopsy capsules widely available are rather small and the specimens obtained are necessarily limited in depth. This, however, does not detract from its usefulness in superficial biopsy from which pathologic interpretation could be made.

References

1. Baker, W.M.W.: Ileorectal Anastomosis for Crohn's Disease of the Colon, *Gut*, 12:427, 1971.
2. Bargen, J.A.: The Prognosis of Carcinoma of the Colon Associated with Chronic Ulcerative Colitis, *Diseases of the Colon and Rectum*, 4:1, 1961.
3. Benjamin, H.B., Herzog, J.V., Klamecki, B., Faylona, R.: Results of the Ano-Transabdominal Polypectomy Procedure, *Amer. J. of Proct.* 16:303, 1965.
4. Burman, J.H., Cook, W.T., Williams, J.A.: The Fate of Ileorectal Anastomosis in Crohn's Disease, *Gut*, 12:432, 1971.
5. Eddy, Personal communication.
6. Goldsmith, M., Turnbull, R.B., Weakley, F.L.: Ileorectal Anastomosis in Crohn's Disease. Presented at the 1973 Meeting of American Proctologic Society.
7. Grinnell R.S., & Lane, N.: Benign and Malignant Adenomatous Polyps and Papillary Adenomas of the Colon and Rectum; an analysis of 1,856 tumors in 1,335 patients, *Surg. Gyn. Obst.*, *Internal Abstr. Surg.* 106:519, 1958.
8. Hawk, W.A., Turnbull, R.B., Jr., and Farmer, R.G.: Primary ulcerative disease of the colon. *Gastroenterology*, 51:802, 1966.
9. Hirschowitz, B.I., Curtiss, B.S., Peters, C.W., and Pollard, H.M.: Demonstration of a New Gastroscope, the Fiberscope, *Gastroenterology*, 35:50, 1958.
10. Hirschowitz, B.I., W'strand: Endoscopic Examination of the Stomach and Duodenal Cap with the Fiberscope, *Lancet*, 1:1074, 1961.
11. Lockhardt-Mummary, H.E., and Morson, B.C.: Crohn's disease of the large intestine, *Gut*, 5:493, 1964.
12. Matsunaga, F., Tajima, T., and Fukami, S.: Colon-fiberscope, Abstracts of Scientific Reports, 11nd World Congress of Gastrointestinal Endoscopy. Rome-Copenhagen, 1970.
13. Morson, B.C., and Bussey, H.J.R.: Predisposing Causes of Intestinal Cancer, *Cur. Probl in Surg.*, February, 1970.
14. Niwa, H., Utisumi, T., Kaneko, E.: Clinical Experiences of Colonic Fiberscope, *Jap. J. Gastroenterol.* 66:907, 1969.
15. Overholt, B.F.: Flexible Fiberoptic Sigmoidoscopes, *CA*, 19:81, 1969.
16. Sakai, Y.: The Technic of Colonofiberscopy, *Diseases of the Colon and Rectum*, 15:403, 1972.
17. Shinya, Personal communication.
18. Welch, C.E.: *Polypoid Lesions of the Gastrointestinal Tract*. W.B. Saunders Company, 1964.
19. Wolff, W.I., Shinya, H., Geffen, A., Ozaktay, S.I.: Colonofiberscopy, *Amer. J. of Surg.* 123:180-184, 1972.

COULD YOU TAKE 30 DAYS VACATION A YEAR AWAY FROM YOUR PRESENT PRACTICE?

You can as a United States Air Force Officer!

In addition to the excellent salary, a very comprehensive benefits list, and the full scope to practice your specialty, the Air Force offers you the position and prestige due your profession. Weigh the confinement of your present practice against the travel and professional freedom you'll enjoy as a commissioned officer. If you're a fully qualified physician, osteopathic physician, dentist, veterinarian or optometrist, isn't it worth a few minutes of your time to investigate the opportunities your United States Air Force can extend to you? You may find your private practice in the Air Force.

**For all the facts on Air Force
Health Care opportunities
please mail in the coupon**

Air Force Opportunities
Box 155
Rantoul, Illinois 61866

Please send me more information. I understand there is no obligation.

Name _____
(Please Print)

Address _____

City _____

State _____ Zip _____ Phone _____

Profession _____

Date of Birth _____

Air Force Medicine



The Recognition and Management of Idiopathic Hypertrophic Subaortic Stenosis In Older Patients†

ROBERT R. GOODIN, M.D., RONALD R. MASDEN, M.D. and
DANIEL E. McMARTIN, M.D.

Louisville, Kentucky

The diagnostic and therapeutic approach to six older patients with idiopathic hypertrophic subaortic stenosis is reported. The importance of accurate diagnosis and the favorable response to therapy are emphasized.

Introduction

In 1957 Brock first described the condition we now know as idiopathic hypertrophic subaortic stenosis (IHSS).¹ Since that time there have been numerous reports describing the interesting clinical features, pathophysiology, and approaches to management of this disorder.^{3-9 12, 14, 15} IHSS has been described generally as a disease of the young to middle-aged population. During the three-year period, 1970-1973, we have studied six patients with IHSS who were above 50 years in age. The increased incidence of hypertension and coronary atherosclerosis in this age group can make recognition of IHSS difficult. In this report we describe the clinical features and management of our six patients and emphasize the importance of accurate diagnosis.

Materials and Methods

Clinical records of all patients undergoing cardiac catheterization at the University of Louisville School of Medicine Cardiovascular Laboratory during the period July 1, 1970 to June 30, 1973, were reviewed. During this period a total of 1,200 patients were studied. Among these patients were a total of eight patients with the diagnosis of IHSS. Six of these patients were over 50 years of age (range 54-70 years). The records of these six patients

were carefully reviewed and the patients were followed up regarding treatment and clinical course since initial catheterization.

Right and left heart catheterizations were performed in all six patients without premedication and while on no medication. Echocardiography and coronary arteriography were performed in two of the six patients. In patients found to have less than 60 mm Hg gradient across the left ventricular outflow area at rest, Isuprel infusion was done at a rate sufficient to increase the heart rate to above 120 per minute. In two patients with resting gradients above 90 mm Hg intravenous Inderal (3-5 mg) was given to determine the acute effects on the left ventricular outflow gradient. Phonocardiography was performed in all patients.

All patients were contacted directly or through their attending physicians to obtain follow-up information. Table I summarizes the clinical features, catheterization findings, and results of treatment in these six patients. The following brief clinical summary represents the first patient in this series and is representative of the group.

Case V.D.: This 65-year-old housewife was referred because of angina pectoris, exertional syncope, severe fatigue, and dyspnea. The referring diagnosis was hypertensive cardiovascular disease and coronary atherosclerosis. A heart murmur had been noted for 12 years. Treatment with Digitalis and sublingual nitroglycerin had been ineffective and the patient volunteered the information that nitroglycerin had regularly made her symptoms worse. Physical examination revealed the classic findings of IHSS: Bisferiens carotid pulses with sharp upstroke; normal venous pressure; enlarged and sustained bifid apex impulse; normal S-1, S-4 gallop at apex; and rather harsh grade IV/VI nonholosystolic murmur heard best at

†From the Department of Medicine, Section of Cardiology, University of Louisville School of Medicine, Louisville

the lower left sternal border and apex without radiation to axilla or neck. There were no diastolic murmurs. With the contraction following a ventricular premature contraction, the carotid pulse was diminished and the systolic murmur became louder. Similar findings were noted during voluntary Valsalva maneuver. Electrocardiogram showed marked changes of left ventricular hypertrophy with ST and T changes. Chest x-ray showed only moderate LVH. At cardiac catheterization a 5 mm Hg peak systolic gradient was recorded across the left ventricular outflow tract at rest, but during Isuprel infusion, a peak gradient of 112 mm Hg was repeatedly recorded and the classic "infundibular" pressure curve was recorded proximal to the aortic valve. Left ventricular cineangiography showed hyperdynamic left ventricular outflow area and moderate mitral regurgitation.

Following catheterization studies, therapy with Inderal 10-20 mg four times daily was instituted and the clinical improvement has remained dramatic. The patient had been severely disabled, cardiac Class IV (NYHA), prior to Inderal therapy. The patient has been followed regularly for three years and has had no further syncope, rare angina pectoris, and only minimal dyspnea, and is now considered to be cardiac Class II. The patient was inadvertently given Peritrate on one occasion and within 24 hours had recurrence of severe dyspnea and chest pain.

Results

The six patients over 50 years of age summarized in Table I make up 75% of patients studied by us with idiopathic hypertrophic subaortic stenosis during a three-year period. The presenting complaints were similar to those of younger patients with this disorder with dyspnea and angina-like chest pain being most common. The duration of symptoms was rather prolonged and all patients had been told of a heart murmur previously. Referring diagnoses included hypertensive cardiovascular disease, coronary atherosclerosis, and rheumatic mitral regurgitation. Five of the six patients had received Digitalis and/or nitroglycerin and four of these patients had noted an increase in symptoms with these drugs. At cardiac catheterization, classic findings of IHSS were noted

in all patients, with four of the six patients having resting left ventricular outflow gradients above 90 mm Hg, and during Isuprel infusion the other two patients developed gradients above 100 mm Hg. Left ventricular cineangiography showed mild to moderate mitral regurgitation in all patients.

Four of six patients have been treated with Inderal for two to three years and the response has been most gratifying. These four patients were considered cardiac Class IV at the time Inderal therapy was begun and all four patients remain cardiac Class I-II at this time with two of these patients returning to full-time employment. One patient (N.K.) has not been treated with Inderal because of associated obstructive pulmonary disease. Patient E.P. was initially treated with Inderal and after showing no improvement was subjected to surgery. Unfortunately dissecting aneurysm of the entire aorta occurred and the patient expired. At autopsy, marked cystic medial necrosis of the aorta was found along with dissecting hematoma of the entire aorta.

Discussion

These cases of idiopathic hypertrophic subaortic stenosis in older patients are presented to emphasize four aspects of this disorder: 1) IHSS should be considered in older patients presenting with dyspnea, angina, and syncope. 2) Although the symptoms and signs of this disease are similar to younger patients, the diagnosis can be difficult to make. 3) Treatment with Digitalis, diuretics and/or nitrates can be harmful in such patients. 4) Medical treatment can be highly successful in such patients.

1. Idiopathic hypertrophic subaortic stenosis is not rare in older patients. Numerous reports in the literature have emphasized that IHSS is generally a disease of the young to middle-aged patients.^{7,15} In one of the largest reported series of IHSS patients (126 patients), the average age was 36 years.⁷ Our small series of patients suggests that this disorder does occur often in older patients with six of eight patients studied being above 50 years of age. The long duration of symptoms and protracted clinical course has been noted by others.^{7,12,15} Assuming that IHSS is a progressive disorder and noting that five of our six patients were cardiac

TABLE I

SYMPTOMS (0-4+) (Duration)						LV OUTFLOW GRADIENT (mm Hg)					RESULT OF TREATMENT				
Patient	Age	Sex	Dyspnea	Chest Pain	Dizz. or Syncope	Palp.	At Rest	During Isuprel Infusion	After Inderal 3-5mg. IV	LVEDP at rest (mm. Hg)	Treat- ment	Dur. of Followup	Pre- treatm. Class	Current Class	Prior Therapy with Dig. and/or Nitrates
V.D.	65	F	+++ (3 yrs)	++	+++	++	5	112	—	13	Inderal	3 yrs	IV	II	Yes
F.S.	55	M	+	+++ (8 yrs)	+++	+	114	—	58	30	Inderal	2 1/3 yrs	IV	I	Yes
C.W.	63	F	+++ (8 yrs)	+++	++	+	124	—	—	21	Inderal	2 yrs	IV	II	Yes
E.R.	54	M	+++ (6 yrs)	0	0	+	115	—	—	22	Inderal	2 yrs	IV	II	Yes
N.K.	55	F	++ (5 yrs)	0	0	+	36	123	—	8	0	5 mos	II	II	No
E.P.	70	F	+++ (10 yrs)	+++	+	+	98	—	80	30	Inderal and Surgery		IV	Died at Oper.	Yes

Class IV at the time of diagnosis, it is likely that the onset of the disease had been at a considerably younger age. The finding of severe resting gradients in four of these six patients would also suggest a late stage of the disease. Whiting et al¹⁷ and Aldoy et al¹⁴ have also emphasized the frequent occurrence of IHSS in older patients.

2. The diagnosis of IHSS can be difficult in older patients. The frequent occurrence of hypertensive and coronary atherosclerotic heart disease in patients over age 50 years often results in failure to consider the diagnosis of IHSS. Symptoms of dyspnea, fatigue, angina pectoris, and palpitations are found in all these disorders. The findings of left ventricular hypertrophy, gallop sounds, and apical systolic murmur are also common to these diseases. The harsh systolic murmur of IHSS can also lead to misdiagnosis of calcific aortic stenosis and rheumatic mitral regurgitation. Referring diagnosis in our six patients included hypertensive cardiovascular disease,⁴ coronary atherosclerotic heart disease,² and rheumatic mitral disease.² Despite the findings common to all the above disorders, the correct diagnosis should not be difficult once it is considered. All six patients reported had the classic findings of IHSS on examination: sharp upstroke carotid pulses, often bisferiens in quality; prominent and bifid apical impulse to palpation; loud fourth heart sounds; and harsh, loud systolic murmur maximal at the lower left sternal border. Valsalva maneuver and post-extrasystolic contraction resulted in a diminished pulse volume and accentuation of the murmur (the

Brockenbrough effect). Electrocardiogram and chest x-ray were abnormal in all patients and were of little help in differential diagnosis. Diagnosis was confirmed at cardiac catheterization. Echocardiography, a simple and non-invasive diagnostic tool, also reveals characteristic findings and can confirm the diagnosis of IHSS.^{19,20}

3. Treatment with Digitalis, diuretics, and nitrates can be detrimental in patients with IHSS. The basic pathophysiology of IHSS is currently felt to be a hypertrophied, non-compliant left ventricle and asymmetric hypertrophy of the interventricular septum.^{18,20} The left ventricular outflow obstruction results from the septal hypertrophy and abnormal motion of the anterior leaflet of the mitral valve.¹⁶ During systolic contractions of the left ventricle, the ventricular cavity is asymmetrically decreased resulting in accentuation of the outflow obstruction. Interventions which reduce left ventricular cavity size (Digitalis, nitrates, diuretics, standing, Valsalva maneuver) or increase left ventricular contractility (Digitalis, Isuprel, nitrates) have been shown to accentuate the findings as well as symptoms in IHSS. On the other hand, interventions which increase left ventricular cavity size (squatting, systemic hypertension, phenylephrine, propranolol, volume replacement) or reduce contractility (propranolol) diminish the findings and often the symptoms in IHSS. Since these patients are often misdiagnosed as hypertensive, coronary or rheumatic heart disease, it is not surprising that most will have been treated with Digitalis, diuretics, and nitrates. Five of our patients had

received one or more of these drugs and four reported worsening of symptoms with such therapy. Such observations suggest that the proposed pathophysiology of this disorder is correct. Discontinuance of such drugs alone can often result in significant clinical improvement.

4. Medical treatment of IHSS can be successful. There is no uniformity in opinions regarding the proper treatment of IHSS in any age group.¹² Most authors agree that in the symptomatic patient, an initial trial of propranolol therapy should be given.^{2,13,22} The response to such therapy has been variable and in the more symptomatic patients (Class III-IV) a failure to respond has often been reported. In such patients remaining severely disabled despite propranolol therapy, surgery has been recommended with surgical results also being quite variable.^{10,11,21} The management of the asymptomatic patient is controversial with recommendations varying from no treatment to the use of propranolol. It is suggested that propranolol with its negative inotropic effects may interrupt the vicious cycle of outflow obstruction causing further left ventricular hypertrophy as well as possibly preventing sudden deaths from arrhythmias.²² Four of our patients treated with propranolol have shown dramatic and long lasting good responses. These patients were severely disabled prior to treatment (Cardiac Class IV) and have improved to cardiac Class I-II with good results persisting greater than two years in all four patients. One other severely disabled patient (E.P.) showed no improvement with propranolol and actually seemed to deteriorate. Surgery was attempted but was unsuccessful due to massive dissecting aneurysm of the aorta of unknown duration. The one other patient has been given no specific therapy due to mild nature of symptoms and the presence of bronchial asthma.

The results of propranolol therapy in our

severely disabled patients have been encouraging and unlike that reported by most authors in such patients. This seems especially important to us in the older patients since such patients are known to be especially high risk patients for open heart operations should one elect surgical treatment.

References

1. Brock, Sir Russell: Functional obstruction of the left ventricle. *Guys Hosp Rep* 106:221, 1957.
2. Harrison, D.C., Braunwald, E., Glick, G., Mason, D.T., Chidsey, C.A. and Ross, J., Jr.: Effects of beta adrenergic blockade on the circulation with particular reference to observations in patients with idiopathic hypertrophic subaortic stenosis. *Circulation* 29:84, 1964.
3. Braunwald, E. and Aygen, M.M.: Idiopathic myocardial hypertrophy without congestive heart failure or obstruction to blood flow. *Am J Med* 35:7, 1963.
4. Lewis, R.P., Bristow, J.D., Farrihi, C., Kloster, F.E. and Griswold, H.: Idiopathic left hypertrophy. *Am J Med* 38:842, 1965.
5. Bowyer, A.F., Hanashiro, P.K., Garr, W.R., Carleton, R.A. and Graettinger, J.S.: Idiopathic hypertrophic subaortic stenosis. *Am J Med* 42:189, 1969.
6. Braunwald, E., Morrow, A.G., Cornell, W.P., Aygen, M.M. and Hilbish, T.F.: Idiopathic hypertrophic subaortic stenosis. *Am J Med* 29:924, 1960.
7. Frank, S. and Braunwald, E.: Idiopathic hypertrophic subaortic stenosis. *Circulation* 37:759, 1968.
8. Flamm, M.D., Harrison, D.C. and Hancock E.W.: Muscular subaortic stenosis. *Circulation* 38:848, 1968.
9. Morrow, A.G., Roberts, W.C., Ross, J., Jr., Fischer, R.D., Behrendt, D.M., Mason, D.T. and Braunwald, E.: Obstruction of left ventricular outflow. *Ann Intern Med* 69:1255, 1968.
10. Kittle, C.F., Reed, W.A. and Crockett, J.E.: Infundibulotomy for subaortic hypertrophic stenosis. *Circulation* 29(Suppl. IV):119, 1964.
11. Trimble, A.S., Bigelow, W.G., Wigle, E.D. and Chrysosou, A.: Simple and effective surgical approach to muscular subaortic stenosis. *Circulation* 29 (Suppl. IV):125, 1964.
12. Parker, B.M.: The course in idiopathic muscular subaortic stenosis. *Ann Intern Med* 70:903, 1969.
13. Adelman, A.G., Shah, P.M., Gramsak, R. and Wigle, E.D.: Long term propranolol therapy in muscular subaortic stenosis. *Br Heart J* 32:804, 1970.
14. Alday, Luis E., Moreyra, E., Amochastegui, L.M. and Maddery, R.J.: Recognizing and treating muscular subaortic stenosis. *Geriatrics* 28 (No. 7):74, 1973.
15. Adelman, A.G., Wigle, E.D., Ranganathan, N., Webb, G.D., Kidd, B.S.L., Bigelow, W.G. and Silver, M.D.: The clinical course in muscular subaortic stenosis. *Ann Intern Med* 77:515, 1972.
16. Dinsmore, R.E. et al: Mitral regurgitation in idiopathic hypertrophic subaortic stenosis. *NEJM* 275:1225, 1966.
17. Whiting, R.B., Powell, W.J., Jr., Dinsmore, R.E., and Sanders, C.A.: Idiopathic hypertrophic subaortic stenosis in the elderly. *NEJM* 285:196, 1971.
18. Williams R.G., Ellison, R.C. and Nadas, A.S.: Development of obstruction in idiopathic hypertrophic subaortic stenosis. *NEJM* 288:868, 1973.
19. Henry, W.L., Clark, C.E., Clancy, D.L. and Epstein, S.E.: Echocardiographic measurement of the left ventricular outflow gradient in idiopathic hypertrophic subaortic stenosis. *NEJM* 288:989, 1973.
20. Henry, W.L., Clark, C.E. and Epstein, S.E.: Asymptomatic septal hypertrophy (ASH): The unifying link in the IHSS disease spectrum, observations regarding its pathogenesis, pathophysiology and course. *Circulation* 47:827, 1973.
21. Cooley, D.A., Leachman, R.D. and Wukasch, D.C.: Diffuse muscular subaortic stenosis: Surgical treatment. *Am J Cardiol* 31:1, 1973.
22. Stenson, R.E., Flamm, M.D., Jr., Harrison, D.C. and Hancock, E.W.: Hypertrophic subaortic stenosis: Clinical and hemodynamic effects of long-term propranolol therapy. *Am J Cardiol* 31:763, 1973.

Diagnosis and Treatment of Scabies†

STEVEN J. HODGE, M.D.,* AND LAFAYETTE G. OWEN, M.D.**

Louisville, Kentucky

The increased incidence of scabies in our region has been evident. A low index of suspicion of this disease will unnecessarily prolong diagnosis and treatment. The diagnosis of scabies should be suspected in any patient with intense, unexplained pruritus, especially of the nocturnal type. In the majority of cases, diagnosis can be established by microscopy and the treatment regimens are effective.

THE worldwide incidence of human scabies has always shown cyclical fluctuations which are not fully understood.¹ Surveys by Epstein have shown that for the past 10-15 years, the disease has become progressively rarer.² Recently, however, Orkin expressed his concern about its rising incidence in different parts of the world.³ We have been made aware of the increased incidence of scabies in our region and present this article to alert physicians as to the diagnosis and treatment of the disease.

Recently, we saw a 57-year-old white priest with a generalized erythematous papular eruption for four months. There were multiple excoriations with scabbing and secondary infection. The patient complained of severe itching, loss of sleep, and was very nervous and hyperkinetic. He was admitted to the hospital, and a complete work-up, including biopsy and KOH scrapings, revealed nothing specific. He was discharged with a diagnosis of

generalized neurodermatitis, ruling out dermatitis herpetiformis and scabies. Treatment with lubricating baths, lotions, steroid creams, intramuscular Kenalog, and sedatives were of little value. Repeated potassium hydroxide scrapings of various lesions were negative until his fourth office visit when a scraping of the web between the index and middle finger showed two intact scabitic mites. Therapy with Kwell lotion resulted in cure.

A second patient was a 21-year-old white male who presented with an acneiform eruption on the trunk. The chief complaint was intense pruritus. The initial diagnosis was *keratosis pilaris* with secondary neurodermatitis and xerosis. On return visit, the eruption was more generalized and excoriated, and scrapings revealed the intact scabitic mite. In both patients, the positive scraping was from the finger webs, which showed minimal involvement clinically.

Clinical Manifestations

Sarcoptes scabiei var. *hominis*, the itch mite, lives in burrows several millimeters to a few centimeters in length. The female is found at the blind end of the tunnel with her oviposited eggs behind her. The burrow has been considered a diagnostic feature of scabies. However, a recent epidemiologic study in India showed that burrows were seen in only seven per cent of reported cases, suggesting that it is not as convenient a diagnostic tool as previously believed.⁴ The burrow appears as a whitish, tortuous or zigzag, thread-like channel. The closed end is marked by a tiny greyish speck, the resting place of the female.⁶ Secondary lesions such as papules, vesicles, pustules, urticarial wheals and indurated nodules are frequently seen. Eczematization and impetiginization may result during maturation.⁵

Scabies produces severe itching which is worse at night, a factor highly suggestive of scabies.⁶ Some workers have considered sensi-

†Reprint Requests to: Louisville General Hospital, Department of Dermatology, 323 E. Chestnut St., Louisville, Ky. 40202

*Department of Pathology and **Department of Dermatology, University of Louisville School of Medicine, Louisville



Figure 1

tization to the mite and not the presence of the parasite or its excreta as a cause of the intense pruritus.² In males, the hands (interdigital folds) and wrists (85% frequency) are involved more often than the elbows, genitalia, ankles, and feet (30 to 40% frequency).⁶ (Fig. 1 and 2) In females, the palms and nipples are the most frequent sites. Children may have only involvement of the palms and in children under age two, involvement of both palms and soles is common. The back is seldom involved, and the head is almost always exempt, except in infants.⁶

Diagnosis

The diagnosis is confirmed by demonstrating the mite which is removed from the lesion by scraping one or more burrows (Fig. 3). The scrapings may be treated with 10% potassium hydroxide or mineral oil and examined by microscopy.⁵ It has been claimed that mineral oil can increase the incidence of a positive diagnosis because it will not dissolve the scabitic fecal material which is also diagnostic. A drop of mineral oil is placed on a scalpel blade and then applied to the top of a burrow so that the mineral oil goes onto the burrow surface. After vigorously scraping the top of

the burrow, all the oil is removed to a glass slide with a cover slip and examined by microscopy.⁷ Another suggested technique is "shaving" a burrow or papule from the skin surface and examining as described above.⁸

Treatment

Gamma benzene hexachloride (Kwell® cream, lotion, or shampoo) is applied after a bath and removed 48 hours later by a bath. This may be repeated in 96 hours if signs or symptoms persist. Crothamiton (Eurax R), may also be used. This is rubbed in well to the entire body surface every 24 hours for two applications, and removed in 48 hours by bath. Benzyl benzoate (25%) emulsion and sulphur have also been used with success. Systemic antibiotics are recommended if secondary infection is present.⁵ Application of steroid creams to pruritic areas may cause an exacerbation of subclinical scabies that originally may not have been suspected.⁹



Figure 2

Comment

We have considered environmental bans on various insecticides such as DDT as a possible reason for the increase in scabies. Cyclic fluctuations have never been fully understood but the following possibilities have been explored: Poverty, poor personal and communal hygiene, sexual promiscuity, misdiagnosis (low index of suspicion), demographic (migrant labor, rural to urban), increased travel, "loss of immunity" of a population, and ecologic.³

The groups that are most affected by scabies are those regarded by sociologists as the "most sexually promiscuous". To a great extent, poor personal hygiene is responsible for the transmission of scabies. The disease is usually transmitted person to person. It has been shown that the scabitic mite lives for only a short time in bedding and clothing.⁵ Poor laundry habits can be a factor in transmission, but with the increased use of commercial laundries, automatic washers, and synthetic detergents in all social strata, it is assumed that these detergents would be stronger scabicides *in vitro* than soap.²

Summary

The increased incidence of human scabies in our geographical area in the past few months has been evident. Initially a low index of suspicion prolonged diagnosis and treatment. The diagnosis of scabies should be suspected in any patient with unexplained severe pruritus, especially of the nocturnal type.⁵ In the majority of cases, diagnosis can be established by microscopy. The treatment regimens are effective.

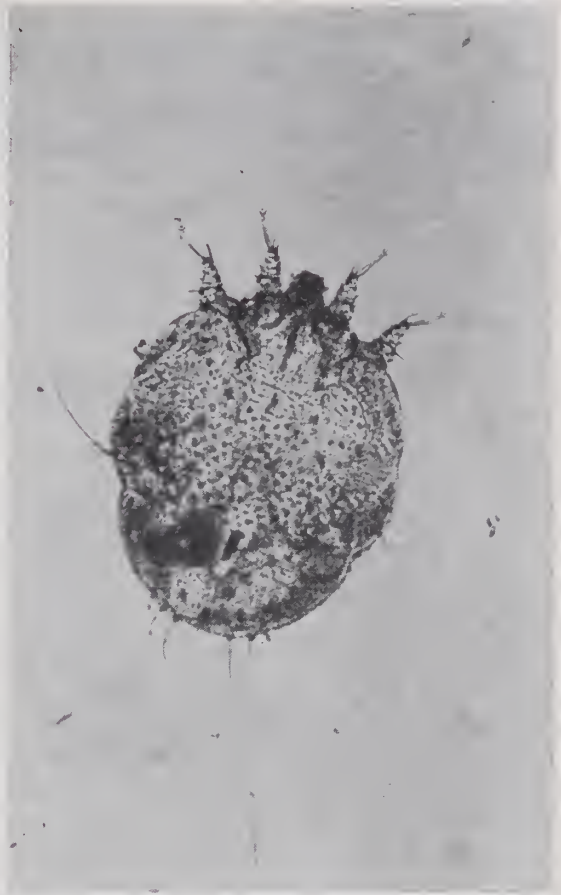


Figure 3

References

1. Rook A., Wilkinson, D.S., Ebling, E.J.G.: *Textbook of Dermatology*, Vol. 2, Oxford and Edinburgh: Blackwell Scientific Pub., 1969.
2. Epstein, E.: Trends in Scabies, *Arch Derm.* 71:192, 1955.
3. Orkin, M.: Resurgence of Scabies, *JAMA.* 217:593, 1971.
4. Sehgal, V.N. et al: Scabies: A study of incidence and a treatment method, *Int. J. Derm.* 11:106, 1972.
5. Downham, T.F., Dieteman, D.F., Borvinick, F.: The Natural History of Scabies, *Cutis.* 12:349, 1973.
6. Fitzpatrick, T.B., Arndt, K.A., Clark, W.H., Eisen, A.Z., Van Scott, E.J., Vaughan, J.H.: *Dermatology in General Medicine*, New York, McGraw-Hill Book Co., 1971.
7. Muller, G. Jacobs, P.H., Moore, N.E.: Scrapings for human scabies, *Arch Derm.* 107:70, 1973.
8. Hoke, A.W., Mikhail, G.R., Krull, E.A.: Letter to Editor, *Arch Derm.* 108:424, 1973.
9. MacMillan, A.L.: Unusual features of scabies associated with topical fluorinated steroids, *Brit J Derm.* 87:496, 1972.



GRAND ROUNDS



The University of Kentucky College of Medicine

This Journal feature will be presented alternately by the University of Louisville and the University of Kentucky Departments of Medicine and Departments of Surgery. We hope to have these features revolve around subjects of immediate practical interest to the practicing physician; and, for those of us not able to attend grand rounds in the teaching centers as often as we might, we hope this will represent a bit of a refresher course.

Endocrine Manifestations of Lung Tumors

A 61-year-old male was admitted to the hospital because of weakness, anorexia, and polydipsia. He had smoked about two packages of cigarettes daily for the past 45 years and had a chronic, nonproductive cough for many years. A chest x-ray before admission showed an infiltrate in the right upper lung which had increased in size since an earlier film two years previously.

Examination revealed an alert man who was disoriented and had a deep voice. His oral temperature was 96.6° F, the blood pressure was 114/80 mm Hg and the pulse was 84 per min. He was mildly dehydrated. Examination of the chest revealed increased resonance to percussion and decreased breath sounds with dry rales over both lower lungs.

The laboratory reported a hematocrit of 33%, a leukocyte count of 19,000 with 4% eosinophils. Fasting plasma values were: Glucose 52 mg%, BUN 18 mg%, sodium 132 meq/l, potassium 5.0 meq/l, chloride 93 meq/l, CO₂ 22 meq/l, calcium 9.2 mg% and phosphorus 4.1 mg%. Total serum protein was 7.0 gm% and albumin was 3.2 mg%. The osmolality of serum was 269 m osm/l and of urine was 147 m osm/l.

Endocrine studies revealed a serum thyroxine of 4.2 µg% (normal is 5 to 14), a triiodothyronine resin uptake of 21% (normal is 26 to 36%), and a TSH of 19.9 Units (normal is less than 11.3). There were no measurable serum thyroid antibodies. A 24-hour ¹³¹I thyroid uptake was 6% (normal is 10 to 30%) and showed no rise after exogenous TSH. Plasma values for LH, 2.9 Units, and FSH, 3.2 Units, were low. A plasma cortisol value, 4.7 µg%, was low. Serum parathormone was kindly measured by Dr. Claude Arnaud

and was 6 Units with normal values ranging from 0 to 40.

During the evaluation of the patient's lung lesion and endocrine problems he began hallucinating and became lethargic. He developed hypothermia (95° F), the hypoglycemia persisted (fasting plasma glucose values of 52 to 74 mg%), and became hypercalcemic with serum calcium values as high as 13.4 mg% and phosphate values as low as 2.5 mg%. Despite hydration, thyroxine replacement, correction of the hypercalcemia and hypoglycemia the patient developed apnea and cardiac arrest on the 27th hospital day and could not be resuscitated.

Autopsy revealed an undifferentiated lung carcinoma of the right upper lobe with metastases to mediastinal lymph nodes, both adrenals (with near total destruction), and to the left anterior hypothalamus and infundibulum. There was severe coronary arteriosclerosis with one occluded coronary artery moderately severe emphysema and diffuse pleural fibrosis. The thyroid was atrophic and the parathyroid glands were normal.

Comments

Lung tumors can produce a variety of endocrine manifestations. This patient had five different endocrine abnormalities: hypercalcemia, hypoadrenalism, hypoglycemia, altered gonadotropin secretion, and primary hypothyroidism. The first four of these were probably related to his lung carcinoma. Hypercalcemia is common with lung tumors. The hypoadrenalism was due to destruction of the adrenal glands by metastases which probably caused the hypoglycemia. The low serum values for FSH and LH are unexplained but

may have been related to secretion of chorionic gonadotropin which would have stimulated estrogen secretion with a resultant suppression of FSH and LH.¹ The well-documented hypothyroidism of this patient represented primary hypothyroidism and was accompanied by a significant increase in plasma TSH.

Endocrine Syndrome Associated with Tumors

Non-endocrine tumors have been associated with increased blood concentrations of at least 17 different hormones. A single tumor may, in fact, produce several different hormones.^{2, 3} These "humors from tumors"⁴ are summarized in Table I. Lung tumors such as carcinomas and bronchial adenomas are the most common ectopic (or non-endocrine) source of these hormones. The most common endocrine syndromes associated with lung tumors are related to tumor production of: ACTH, parathormone, chorionic gonadotropin, and ADH. These syndromes will be discussed below.

Table 1
HUMORS FROM TUMORS

Humor	Tumor Site
ACTH	Lung, thymus, pancreas
Parathormone	Lung, kidney, colon
Gonadotropins	Lung, liver, stomach
ADH	Lung, pancreas, prostate
Insulin*	Retroperitoneal fibromas or sarcomas
Other: Calcitonin, CRF, erythropoietin, estrogens, gastrin, glucagon, growth hormone, MSH, phosphaturic-humor, phytoosterols, serotonin, TSH.	

*Insulin is found in only a small percentage of tumors associated with hypoglycemia.

Cushing's Syndrome. Well over 200 cases of ACTH production from non-endocrine tumors have been documented.^{5, 6} Ectopic production of ACTH has been associated with lung tumors in the majority (60 to 70%) of cases while pancreas, and thymus, account for most of the remaining cases (about 10% each). When ACTH production is associated with malignant tumors generally the serum ACTH and cortisol levels are extremely high; these patients frequently have hypokalemic alkalosis, and may have diabetes but lack the classical manifestations of Cushing's syndrome such as osteoporosis, pigmented striae and truncal obesity. On the other hand when ACTH pro-

duction is associated with benign tumors (bronchial adenomas) the onset is slow and insidious and the patient may have all of the classical features of Cushing's syndrome. Bronchial adenomas produce moderate elevations of the plasma ACTH and resultant adrenal hyperplasia. Their corticosteroid production frequently can be further stimulated by metyrapone or exogenous ACTH and can be suppressed by large doses of dexamethasone.⁵ Thus certain patients with bronchial adenomas may respond to diagnostic testing in an identical fashion to patients with Cushing's disease related to a pituitary adenoma. We have no evidence that the tumor in this patient was producing ACTH.

Hypercalcemia, as noted in this patient, is seen in about 15% of patients with lung carcinomas.⁷ Hypercalcemia produces stupor, coma, polyuria, anorexia, and weakness and this patient had most of these symptoms. In some instances the hypercalcemia is related to bone metastases while in other cases parathormone secretion by the tumor is the cause. Parathormone production by the tumor should be suspected when hypercalcemia is accompanied by hypophosphatemia (serum phosphate values below 3.5 mg/100ml). Although the parathormone value (measured by radioimmunoassay) in this patient was within the normal range this does not exclude an excess of parathormone production by the tumor. The parathormone produced by tumors appears to have different immunological properties than the normal hormone; immunoassayable parathormone is also within the "normal range" in most patients with hypercalcemia and hypophosphatemia associated with malignancy.⁸ Thus we cannot determine whether the hypercalcemia in this patient was related to parathormone secretion by the tumor or to undetected bony metastases.

Gonadotropin production by non-endocrine tumors is generally associated with lung carcinomas.¹ The presenting feature is generally *gynecomastia* although these patients may have elevated urinary estrogen values. Studies of the pituitary gland demonstrate a decrease in the amount of FSH and LH that can be extracted. The low serum values for FSH and LH in this patient suggests that his tumor may have produced chorionic gonadotropin which would not

be detected by assays for FSH and LH. The low FSH and LH values, on the other hand, may have been related to the hypothalamic metastases.

ADH production leading to the inappropriate ADH syndrome has been reported in over 50 patients in the past six years.⁹ This hormone, in excess, leads to *hyponatremia* with a decrease in serum osmolality and an increase in urine osmolality to values of 500 m osm/l or greater. The hyponatremia in this patient probably was related to adrenal insufficiency and his urine osmolality was not consistent with an excess of ADH.

Laboratory abnormalities that have been associated with non-endocrine tumors are summarized in Table 2. Any of the serum abnormalities can produce stupor, coma or convulsions and thus can resemble brain metastases.

Table 2

LABORATORY CLUES TO ENDOCRINE DISORDERS

Clue	Cause
Hypokalemia	ACTH production
Hyponatremia	Adrenal insufficiency or ADH production
Hypercalcemia	Parathormone production or Bony metastases
Hypocalcemia	Calcitonin production
Hypoglycemia*	Insulin production or Unknown mechanism
Hyperglycemia, severe	ACTH production

*May also result from adrenal, thyroid, or pituitary hypofunction.

Mechanism for Humors from Tumors

Two basic theories have been advanced to explain hormone production from non-endocrine tumors. One school of thought suggests that gene derepression allows the cellular genes coded for synthesis of a specific hormone to signal for hormone production in the malignant cell. Since every body cell originates from a single fertilized ovum, every nucleated cell carries the same genetic information. Theoretically every cell has the potential to produce hormones, but does not because this synthetic pathway is turned off (repressed). Thus it has been speculated that as the tumor becomes progressively more undifferentiated it may stop making specific repressors of certain genes

and the synthesis of a specific hormone may be turned on by activation or derepression of specific genetic material.^{4, 10} This hypothesis is supported by the observations that certain tumors produce several different polypeptide hormones presumably because several genetic units are activated.^{2, 3}

The second principal theory suggests that most hormones originate from cells that have similar histological similarities. These authors speculate that the lung, thymus, and pancreas may contain, for example, very small numbers of ACTH-producing cells which produce ACTH in large amounts when they become malignant. It has also been suggested³ that oat cell carcinoma of the lung, the most frequent cell type associated with ACTH production, may be a more malignant variety of carcinoid tumor (another frequent site of ACTH production).

Treatment

Therapy in most cases, as in this patient, should be directed at symptomatic relief of the endocrine disturbance. However, in certain cases the endocrine syndrome can be cured by surgical removal of the tumor. Thus, Cushing's syndrome can be cured by removal of ACTH-secreting bronchial adenomas and certain other tumors. Vigorous potassium chloride replacement may be required for some cases of hypokalemic alkaloses associated with an ACTH-producing tumor.¹¹ Metyrapone therapy may provide some relief of the Cushing's syndrome¹² and a therapeutic trial should be considered for patients who, otherwise, have a fair to good prognosis.

The inappropriate ADH syndrome with its associated hyponatremia, decreased serum osmolality, and urine osmolality ranging from 150 to 300% of serum values can generally be reversed by fluid restriction. Accurate weights and careful fluid balance measurements, coupled with moderate to severe restrictions of fluid intake are essential in reversing the hyponatremia in these patients.⁹

The gynecomastia associated with chorionic gonadotropin production by tumors is generally asymptomatic and requires no specific therapy.

Hypercalcemia, however, is always a potential threat to life in the patient with malignancy. Dehydration is the most common pre-

precipitating event leading to hypercalcemia. The primary aim of therapy is to maintain adequate hydration and a generous urinary volume.¹³ Intravenous normal saline (0.9%) administered at a rate of 2000 to 3000 ml daily ensures hydration and, also, the sodium intake promotes urinary calcium excretion (Table 3). Administration of corticosteroids is particularly effective in reversing the hypercalcemia associated with breast carcinoma and multiple myeloma and lowers the serum calcium in approximately half the cases of hypercalcemia associated with other malignancies. Steroids act to antagonize the action of vitamin D and decrease calcium absorption in the intestine. Thus, a therapeutic trial of approximately 40 mg of prednisone daily should be considered as the second step in the management of moderate hypercalcemia. If the hypercalcemia persists despite generous hydration and steroid therapy, oral phosphates should be given. Oral or intravenously administered phosphates lower the serum calcium by promoting extraskelatal deposition of calcium and perhaps by inhibiting bone resorption. Approximately two to four grams of *phosphorus* (6 to 12 grams of *phosphate*) can be administered in divided doses as a neutral solution without inducing diarrhea.

Emergency measures are indicated when the patient develops stupor or coma and has serum calcium values above 15 mg%. Hypercalcemia, per se, can produce central nervous system symptoms such as coma or lateralizing signs that mimic brain metastases. Vigorous hydration again is indicated but other measures such as intravenous phosphates, mithramycin or furosemide are also required. Intravenous phosphate has been used the most widely.^{13, 14}

Table 3

THERAPY OF HYPERCALCEMIA

General Measures

HYDRATION—2 to 3 liters saline daily

PREDNISONE—40 mg daily

ORAL PHOSPHATES—2 to 4 g P daily

Emergency Therapy

IV PHOSPHATES—1.5 g P in 8 hours, or

MITHRAMYCIN—25 µg/Kg body weight, or

FUROSEMIDE—100 mg IV, can be repeated

A saline solution containing 1.5 gm of *phosphorus* should be given over an eight-hour period. Since the serum calcium may plummet rapidly, the serum calcium should be measured every four hours during therapy and for the next 12 hours following therapy. Other measures which have been used for the therapy of life threatening hypercalcemia are mithramycin, 25 µg per kg body weight given as a single dose,¹⁵ and furosemide, an intravenous injection of 100 mg which can be repeated as required every two or three hours.¹⁶

Summary

Endocrine manifestations may be associated with a wide variety of non-endocrine tumors. These symptoms and signs may result from destruction of endocrine glands or from ectopic production of hormones. Since these manifestations such as hypokalemia, hyponatremia, hypercalcemia, hypocalcemia, severe hyperglycemia, and hypoglycemia may be life threatening events they should be considered in any patient who develops a sudden change in mental status. Early recognition of these reversible biochemical derangements may significantly prolong the life of a patient with a nonmalignant tumor or when the malignancy itself is not producing a terminal state.

James W. Anderson, M.D.

References

1. Fusco, F.D. and Rosen, S.W. Gonadotropin-producing anaplastic large-cell carcinomas of the lung, *NEJM* 275:507-515, 1966.
2. Law, D.H., Liddle, G.W., Scott, H.W. Jr., and Tauber, S.D.: Ectopic production of multiple hormones (ACTH, MSH and gastrin) by a single malignant tumor, *NEJM* 273:292-296, 1965.
3. O'Neal, L.W., Kipnis, D.M., Luse, S.A., Lacy, P.E., and Jarett, L. Secretion of various endocrine substances by ACTH-secreting tumors—gastrin, melanotropin, norepinephrine, serotonin, parathormone, vasopressin, glucagon, *Cancer* 21:1219-1232, 1968.
4. Roof, B.S., Carpenter, B., Fink, D.J., and Gordan, G.S. Some thoughts on the nature of ectopic parathyroid hormones, *Am J. Med.* 50:686-691, 1971.
5. Strout, C.A., Nugent, C.A., and Tyler, F.H. Cushing's syndrome caused by bronchial adenomas, *Am. J. Med.* 44:97-104, 1968.
6. Sachs, B.A., Becker, N., Bloomberg, A.E., and Grunwald, R.P. "Cure" of ectopic ACTH syndrome secondary to adenocarcinoma of the lung, *J. Clin. Endocr.* 30:590-597, 1970.
7. Locks, M.O. Incidence of hypercalcemia in patients with proved carcinoma of the lung, *J. Lancet* 82:165-167, 1962.
8. Riggs, B.L., Arnaud, C.D., Reynolds, J.C., and Smith, L.H. Immunologic differentiation of primary hyperparathyroidism due to nonparathyroid cancer, *J. Clin. Invest.* 50:2079-2083, 1971.
9. Vorherr, H., Massry, S.G., Utiger, R.D., and Kleeman, C.R. Antidiuretic principle in malignant tumor extracts from patients with inappropriate ADH syndrome, *J. Clin. Endocr.* 28:162-168, 1968.
10. Omenn, G.S. Ectopic polypeptide hormone production by tumors, *Ann. Int. Med.* 72:136-138, 1970.
11. Hall, T.C. Symptomatic hypokalemic alkalosis in hyperadrenocorticism secondary to carcinoma of the prostate, *Cancer* 21:190-192, 1968.

(References continued on page 226)

SPECIAL ARTICLES

The Success of Private Practice†

W. NEVILLE CAUDILL, M.D.*

THE private practice of medicine has served, and is serving America well. Consider the following:

INFANT MORTALITY—Since 1960 the U.S. infant mortality rate has decreased more than 25%—AND IS STILL DECREASING. When compared to population groups or countries of equal size and diversity, our infant mortality statistics surpass those of other areas, according to a letter by Ernest Howard, M.D., to NBC-TV. This, in spite of the fact that the criteria for live birth in most of these other countries would artificially lower their infant death rate. An infant born in the U.S. is generally counted as a live birth if it has a heart beat and makes respiratory efforts. In Sweden, a birth is not counted unless the baby lives 24 hours—furthermore, Swedish parents have five years to report a birth so that children who die before age five are often not counted. In Russia, infant deaths aren't counted if they occur within 28 days of birth. In parts of Germany a birth is not registered until the child is baptized (*American Opinion*, 1971).

LIFE EXPECTANCY—Since 1930 the American life expectancy has increased from 59.7 years to 71.1 years (Bureau of Labor Statistics, 1972), although we seem to be bent on self-destruction by overeating, smoking, alcoholism, drug abuse, and adolescent use of overpowered, underbuilt automobiles. The foregoing are more social than medical diseases.

HEALTH MAINTENANCE (PREVENTIVE MEDICINE)—Many advocates of alternate methods of medical care have loudly proclaimed that American doctors are "crisis oriented". An outgrowth of this fuzzy thinking is the following statement made by George

Meany before the House Ways and Means Committee, "As long as the only way a physician can support himself and his family is to wait until somebody becomes sick, it is understandable if his driving force in life is not preventive medicine." This is, of course, nonsense! The private practice of medicine is directly responsible for the implementing of the measures which have neutralized or virtually eliminated the threat of: polio, smallpox, diphtheria, typhoid, pertussis, tetanus, tuberculosis, measles, and German measles. The literally hundreds of thousands of lives which have been saved by early detection of potentially devastating diseases attest to the efforts of private practitioners in encouraging routine pap smears, self-examination of the breast, periodic check ups, chest x-rays, and early surveillance and therapy of such conditions as diabetes, hypertension, arteriosclerosis, etc. Long before it became fashionable to do so, private practitioners were campaigning against pollution, smoking, obesity, environmental, and genetic health hazards.

ACCESSIBILITY—In the private practice of medicine the portal of entry to the medical "system" is the door of the doctor's office. Indeed, the problem seems to be that of getting the patient to go to the doctor's office. Once in the office there is no determining eligibility, checking for dues payment, nor other administrative procedures necessary in the management of many of the "alternative methods of health care delivery." The patient is seen first. Payment is a secondary consideration in private practice.

The urban and rural poor present special problems and may require special solutions but the services of the private practitioner have always been available to them. The main problems here, again, are social—"the inertia of the poor," the lack of transportation and the lack of education. These problems exist

†Presented at the 1973 KMA Interim Meeting on March 29 at Lake Barkley State Resort Park, Cadiz
*Chairman, KFMC Claims and Utilization Review Committee

even in those areas where welfare programs have eliminated all cost of health care to the recipient. One of the recurring headaches for the government-sponsored health centers is the high percentage of follow-up appointments which are not kept—this in spite of the fact that many centers have “outreach” programs which literally search out and bring in patients.

Those who maintain that massive governmental intervention and reorganization will improve accessibility of needed medical services would do well to consider the following: Doctor Gunnar Björck, Professor of Medicine, Karolinska Institute, Stockholm, First Physician to his Majesty King Adolf VI, and a full-time employee of the Swedish national health system for the past 30 years, observed that since total nationalization of Swedish health services (in January, 1970), “waiting lists have been substantially increased during 1970 for admission to hospital *outpatient* departments and are so useless for certain clinical departments (such as departments of medicine) that they are almost not in use. Two-thirds to three-fourths of all admissions to departments of medicine take place as emergencies, in many instances emergencies among those who were on the waiting list. Waiting time in our outpatient department has doubled in 1971.” (*Modern Medicine*, August, 9, 1971, p. 40).

In England “the **average** wait for a non-urgent operation is 22 weeks and the waiting period may stretch to years.” (Anthony LeJeune, *Indianapolis Star*, July 9, 1969). Both England and Sweden have huge waiting lists for elective hospital admissions and both have high percentages of emergency admissions, presumably a substantial proportion of which occurred in people whose medical condition progressed to life-threatening severity while they waited for admission.

COST—One HEW bureaucrat has said that the “biggest bargain” in medical care today is a trip to the doctor’s office. This should be qualified by specifying “private doctor’s office”. In Louisville, a routine office visit cost from \$5-10 in 1970—generalists and specialists included. Comparable costs at federally-sponsored neighborhood health centers, rural and urban, ranged from \$12.64 to \$21.79 in fiscal year 1968-69 (*Socio-Economic Report*, May, 1971). As reported by one of its directors in 1971, the “Group Health Association, Inc. of

Washington, D.C., a private, not for profit, prepaid group practice, has a medical encounter cost of \$23.59.” (Harvey Sloane, M.D. response to Park DuValle Board of Directors). A medical encounter is a visit to the doctor’s office—not inclusive of drugs, lab work nor x-ray.

From 1960 through 1971, physicians’ fees rose almost 70%. Over the same period of time the weekly wages for manufacturing production workers rose over 90% (*Medical Economics*, September 25, 1972, p. 88), and Kentucky state tax revenues rose almost 300% (*Courier-Journal*). The average worker—both white and blue collar—puts in fewer hours today to purchase physician services than he did 10 years ago (*Medical Economics*, September 13, 1971, p. 93).

That medical care costs have risen disproportionately with the overall cost of living is true, but this rise is due primarily to two factors—new, and expensive, technologic advances which have vastly improved our diagnostic and therapeutic capabilities; and soaring labor costs of the ancillary personnel necessary to deliver these services. These increased costs are present in *all* alternative delivery systems but are generally referred to publicly as occurring only in the private sector and the onus is placed on the physician for ordering these services. The utopian ultimate of health care delivery systems exists in Sweden according to many critics of the American system. From 1950 to 1970, American drug costs rose 121% vs. 167% in Sweden. Physician costs rose 146% in the U.S. and 482% in Sweden. Our hospital costs were up 185% compared to a whopping 486% increase in that Scandinavian social Shangri-la. (*Medical World News*, August 18, 1972, p. 73).

EFFICIENCY—Contrary to what many of the “health planners” would have led us to believe, there is good evidence coming forth that the mass production theory applied to delivery of medical care does not result in greater efficiency.

In a study of internists by a University of California health economist, it was found that the soloists out-produced group practitioners on the basis of patient visits per month, “and the larger groups didn’t give the patient more for his money. Multispecialty groups of five or more physicians charged fees averaging

\$37.82 an hour, in contrast to \$26.66 for the soloists." (*Medical Economics*, November 6, 1972, p 180).

A Rand Corporation investigation of group versus solo practitioners concluded "that the overhead of big groups per doctor are much higher than those of physicians working alone or in small partnerships. Besides being more costly, the clinics we have observed are much less pleasant settings in which to receive care. The cottage industry may not be so bad after all." (*Medical Economics*, November 6, 1972, p. 180).

Imagine, for a moment, 25 physicians—both primary and specialist—of sufficient diversity as to be able to provide comprehensive medical care to a given number of people. If that number of physicians were in solo or small group practice, each would be managing his own business and professional affairs and utilizing his office personnel to the maximum feasible extent—there is rarely any deadwood in a private physician's office. Indeed, in order to cut personnel and office space expenses, more and more private practitioners are sharing expenses or forming small partnerships. Now, imagine that same 25 physicians organized into a clinic, multispecialty group, or HMO. Even assuming equal productivity by the physicians and office personnel—a dubious assumption—the practice overhead would be bloated by the salaries of the required executive administrators, medical directors, their staffs, and in the case of a prepaid HMO, the sales force necessary to enlist enrollees. It is naive bordering on stupid to assume that such an organization would be the more efficient.

QUALITY—The highest quality service or product is that produced by an individual for another individual whether it be the design of a house, a piece of Steuben glass, or the prescribing of therapy. As any homeowner knows, the skilled services of a plumber, electrician, or carpenter are likely to be of higher quality when the purchaser contracts directly with a reputable worker for the provision of his services. In this way the worker is personally (not corporately) responsible for his services and is much more apt to tailor these services to the special needs of the purchaser—not to mention the monetary savings achieved by eliminating the middle man or contractor. The analogy between this and medical services is obvious.

The quality of American medicine is borne out by a nationwide study from the University of Chicago (*American Medical News*, January 17, 1972) which revealed that although 75% of the people believed there is a "crisis" in health care—90% *were satisfied with their own health care!* One can only wonder if the awareness of this "crisis" is but a manifestation of the "big-lie" technique wherein a lie told often enough becomes believable. Recent publications in the media as well as statements by self-serving politicians would seem to indicate that this is the case.

From the foregoing it should be clear that American medicine has been doing its job—and doing it pretty doggoned well. Certainly any enterprise dealing in such uniquely personal services which achieves a 90% satisfaction rating is doing admirably well.

* * * * *

That there are improvements needed in several areas of our health care delivery is undeniably true but that this constitutes a "crisis" is undeniably false. Those who clamor for "overhaul" and "sweeping reforms" of American medical practice are of the mentality which would cut down a redwood forest in order to rid it of a few scrub pine trees. Incidentally, most of their proposed "new and innovative" medical care alternatives are about as new and innovative as the crank telephone. Unfortunately, although these self-styled reformers are widely and uncritically accepted and publicized by the media and politicians, they, for the most part, have no experience in the personal responsibility for the maintenance and restoration of the health of another individual—or if they have had that experience, have found the stress intolerable and have retreated to the less demanding pursuit of health care planning—rather than health care responsibility.

These critics suggest that the "crisis" can be overcome by applying the techniques of big business, government, and manufacturing to the delivery of health services. The basic assumptions here are fallacious. The care of health wants and needs is a highly personal affair and is no more amenable to standardization than are the human beings to whom it is applied. Although often ignored, this is a critical distinction which *must* be made when comparing medical services with any other service industry and certainly with production indus-

tries. Their idea that we have a "non-system" is incorrect. The fact is that we work within a very definite, though subtle and highly flexible, system which allows for the maximum in human variability and is, thereby able to adapt to the peculiar needs of the individual.

It is frightening and discouraging to me that in spite of all of the foregoing facts, our legislators have written into several of their proposed health bills provisions which would penalize the private practice of medicine in favor of prepaid contract medical practice (HMOs if you will). In testimony before the House Ways and Means Committee, Professor Joseph D. Cooper of the Department of Political Science, Howard University, said the following:

"The leading group practice in which I have had charter membership since 1939

has had a tenfold increase in its basic dues since then, with the end not in sight, plus the imposition of innumerable fees for service. At the same time, over the years (at least in my own perception) I have observed a growing depersonalization and a loss of quality control as inevitable reactions to size of membership and turnover of professional personnel . . . We need more information as to the reasons for members and doctors resigning from group practices and as to why members may engage outside medical services at their own expense, beyond their group practice entitlements." (*American Medical News*, November 22, 1971).

The success of private practice, though often ignored, is nonetheless real—and if given the opportunity, speaks for itself.

The University of Kentucky SAMA Summer Program In Health Careers

DEWEY P. BALLARD, B.S.,* TOM JAMES, M.D.,** AND JOHN C. WOLFF, JR., M.A.***

DURING the past several years there have been numerous programs to increase the number of health professionals from disadvantaged backgrounds.¹ It is well known that minority groups have been poorly represented in the health professions,² but attitudes have changed about professional school admissions, and many schools are currently actively recruiting students from minority groups. The high proportion of minority applicants, as opposed to white applicants, accepted into health professions education is another indication of institutional attempts to establish equality.

A variety of programs have been described in the recent medical literature for increasing the number of applicants by increasing the

knowledge and interest in health careers among high school and college students.^{3-7, 9-12} This paper describes such a program conducted by the Student American Medical Association at the University of Kentucky.

Program and Participants

In 1969 the Student American Medical Association at the University of Kentucky designed a program to encourage high school and college students from disadvantaged backgrounds to pursue health careers. The program was directed toward black students and low-income Appalachian students.

It was hypothesized that the paucity of interest in health careers among disadvantaged youths was due to their lack of knowledge of career opportunities and the lack of people to serve as career role models. An eight-week Summer Program was developed which would expose these students to the various health career possibilities and would maximize interaction between young health workers and the

*Fourth year medical student at University of Kentucky, 1972 Director of SAMA Summer Program.

**Intern at Temple University Hospital, Pennsylvania; 1969 and 1970 Director of SAMA Summer Program; one of the originators of the program.

***Project Director, Section for Special Student Programs, College of Medicine, University of Kentucky; advisor to SAMA Summer Program from 1971-73.

program participants. It was felt that because of the similarity in age and many shared interests, medical students and other health science students would serve as role models. Efforts were made to enlist the support of minority (both low-income Appalachian and black) health science students to work with the program.

The program was administered by medical students, with the sanction of the University of Kentucky Medical Center. Financial support for the four years of the program came largely from the University of Kentucky and also from both governmental and private sources.

Program participants were selected from their applications and by recommendation from their school and community leaders. Talks and seminars were given each spring both at the medical center and in the various communities to publicize the program. The communities were encouraged to select the students with the hope that the community's interest in them would further their desire to follow a health career. The main criterion for selection was minority group membership with, preferably, a poverty background. The Department of Labor's Neighborhood Youth Corps (N.Y.C.) guidelines were used to determine income-group classification. Referrals of participants made by county N.Y.C. directors insured these applicants' low-income status.

Academic performance was never a criterion for selection since the program emphasized all health fields, and it is believed that there are positions for people of all abilities. Students were selected mainly from areas of Kentucky currently experiencing a shortage of health manpower, but some out-of-state students participated each summer.

The participants gained exposure to health careers through a working experience at the University of Kentucky Medical Center. Each student worked 36 hours weekly under the supervision of a faculty or staff member. The jobs were located in both research and clinical areas, and care was taken to structure the jobs as challenging and meaningful. They were viewed as educational experiences as well as jobs. Students were placed in their jobs according to their interest and abilities. Some students carried out their own research while others required more supervision. Time was allotted to allow students to visit other departments,

and they were encouraged to do so.

The formal educational part of the program consisted of seminars, field trips, and educational counselling. Weekly field trips and seminars were held to demonstrate health career opportunities outside the medical center and in areas of special interest. Emphasis was placed on the importance of the work, the description of requirements, and the need for people in the respective area. Frequently, field trips were planned for facilities located in communities where the need for health workers is most critical. These were the areas from which the program participants were recruited. Seminars were on topics of interest to the participants: childbirth, venereal disease, and emergency medical care. Such topical seminars were more common in the 1969 and 1970 programs.

Educational counselling was a prominent feature of the 1971 and 1972 programs. Medical students and University officials held regular sessions with small groups of students. The students' interests were explored, and college admissions and financial aid questions were answered. During the first two years, counselling was less formal and regularly scheduled sessions were not held.

During the 1969 and 1970 programs, most students selected were from the Lexington area and lived at home for the eight weeks. For the 1971 and 1972 programs all students lived in University dormitories. It is felt that this arrangement resulted in a more cohesive group and allowed for more interaction between the participants and the health science students.

During all four years, students had access to University recreation facilities. Each summer there were three or four recreational activities. Picnics, plays, and concerts were scheduled. Furthermore, there were frequent spontaneous get-togethers when some of the program directors or "big brothers" visited the dorm. The recreation events made the program more enjoyable and strengthened the role model concept designed into the program.

Each program participant received a stipend and food allowance. Dormitory fees, health insurance, traveling expenses, and physical examinations were also provided. The total cost per student varied from \$600-800 depending on whether or not they lived in University housing.

Results

Questionnaires were mailed to the 62 participants of the first three years of the program. The questionnaires were designed to ascertain the educational and career levels attained by the former participants. The questionnaires also determined how many people were still interested in a health career, but for various reasons were not pursuing one.

Table 1 indicates the results of the questionnaire. Fifty-one of the 62 participants returned the questionnaires and received an incentive of two dollars for doing so. Six are currently working in a health profession, and four of these positions required a year or more of training. Twelve are enrolled in health career training programs. Such programs as pre-med, technical school, and professional schools are represented. Another 21 people say that they are still interested in a health career but are not pursuing their interest.

In order to determine program effects and provide comparison data, a small controlled study was conducted. In the 1970 Program, selection of participants was randomized from three Kentucky high schools, two rural and one urban. Twenty-four applications were received, and 12 were randomly selected to participate. The follow-up two years later indicates that six of the 12 students who did participate are either working in a health field or are in a health care curriculum. Only two of the 12 in the control group are in these two categories.

Conclusion

The longitudinal study indicates that the program has had success in meeting its objectives. Approximately a third of the program alumni are actively pursuing health careers. The controlled study of the 1970 program suffers from being a small sample but does suggest that the program has a positive effect on the career aspirations of minority group youths.

There are two features of the SAMA Summer Program which made it somewhat unique and were instrumental in its success. The program was student designed and operated. This design allowed for maximum interaction between the young health professions students and the program participants. Furthermore, by

Table 1
OUTCOME: 1969-1971 PARTICIPANTS
SAMA Summer Program at the University of
Kentucky College of Medicine

	Number	Percent
In Health Careers	6	9.7
Licensed Practical Nurse	1	
Medical Technologist	2	
Nurse's Aide	2	
Medical Social Worker	1	
	<u>6</u>	
In Post High School Health Career Curricula	12	19.4
Medical School	2	
Dental School	1	
Declared Pre-Med	6	
College RN Program	1	
X-Ray Tech Program	1	
Mental Health Training	1	
	<u>12</u>	
Not in Training Who Still are		
Interested in Health Careers	21	33.9
High School or College		
Freshman	16	
Married	5	
	<u>21</u>	
Not Interested in Health Careers	12	19.4
Lost to Follow-up	11	17.7
TOTAL PARTICIPANTS	62	100.1

utilizing student labor, the fixed costs of the program were low. Ninety per cent of the budget went directly to the program participants. The other important feature is that the program stressed all health fields and accepted participants with varied backgrounds and interests. Thus, individualized programs and placements were designed to meet each of the student's needs.

References

1. Johnson, D.G.: *Minority Student Opportunities in United States Medical Schools*, 1970-71. Association of American Medical Colleges, Washington, D.C., 1970.
2. Crowley, A.E., Nicholson, H.C.: Negro enrollment in medical schools. *JAMA* 210:96-100, 1969.
3. Alexander, L.L.: Central Brooklyn model cities health professional program. *J Natl Med Assoc* 62:465, 1970.
4. Alexander, L.L.: Recruitment project at Downstate Medical Center, Brooklyn, New York. *J Natl Med Assoc* 63:64, 1971.
5. Calisti, L.J.P., Hozid, J.L.: Recruiting minority group students for health professions. *J Am Dent Assoc* 82:1094-1099, 1971.
6. Duval, M.: Recruiting within minority groups. *Ariz Med* 27:107, 1970.
7. Ferretti, J.J.: Career opportunities in the health sciences. *J Okla State Med Assoc* 64:186-190, 1971.
8. Gilbert, R.: *Jefferson-South Philadelphia high school program: Summary Evaluation for 1969-1970*. Unpublished data.
9. Nelson, B.W.: Increasing minority group enrollment: a task force proposal. *JAMA* 218:1814-1815, 1971.
10. Toole, J.F., Coombs, R.H., Robertson, R., Stein, L.: Attracting young people into careers in the health professions. *J Med Educ* 45:415-420, 1970.
11. Walker, W.J.: Pilot summer program in medical and life sciences for black students. *J Med Educ* 46:537-539, 1971.
12. Nelson, B.W., Bird, R.A., Rogers, G.M.: Educational pathway analysis for the study of minority representation in medical school. *J Med Educ* 46:745-749, 1971.

Letters To The Editor

The Letters To The Editor column is a means for the KMA physicians to express their opinions and viewpoints on varied topics. If you have an item you would like brought before your fellow practitioners, please submit it to Letters To The Editor, Kentucky Medical Association, 3532 Ephraim McDowell Dr., Louisville, Kentucky 40205. Communications should not exceed 250 words. The right to abstract or edit is reserved by the editors of *The Journal*. Names will be withheld upon request, but anonymous letters will not be accepted.

Dear Editor:

In glancing over the February, 1974, *Journal*, I again find the physician-population ratio in Kentucky counties for 1973, listed on pages 97 and 98. The figures that are stated in *The Journal* are absolutely meaningless. They don't really tell the story that they are intended to tell.

Note for example the 1973 Physician-Population Ratio. This should indicate the number of physicians that are practicing in the particular county involved. This is not at all what is really contained in the figures. For instance, my home county (Christian) is shown as having 48 physicians listed. These figures are gotten usually from the Kentucky Medical Board of Licensure. This means that those physicians living in Christian County are listed. The numbers become meaningless in that, of those physicians listed as being in Christian County, many happen to be physicians who are on active duty in the service and practice at Fort Campbell. They do not see the inhabitants of Christian County.

Also, included in this list are physicians who are employed at Western State Hospital, one of the state psychiatric units, and are not available for the 55,539 residents of Christian County. Thus, the physician-population ratio of Christian County is not 1,157, as noted in the figures. I am sure this probably applies to other counties as well, though probably Christian County suffers more than some because of the proximity of the Army base.

Since these numbers are the ones used to decide "critical" and "semi-critical" counties, and thus can be used in providing Rural Kentucky Medical Scholarship physicians, the numbers are not really pertinent to assessing the need of physicians of a particular county, especially Christian. For example, in the 1974 directory there are 60 physicians listed as being in Christian, actually only 39 of them practice here. Of the 39, some are retired, others

are not even on the staff of the hospital.

It would seem worthwhile, and would not be particularly difficult, to obtain meaningful information on the number of physicians practicing in the particular county. To obtain really meaningful data one should know the number of practitioners providing primary care for a particular area. This would be a better number on which to base the decision of which counties indeed have the greatest need of physicians.

I would appreciate it if you could present this problem in *The Journal* and see what we might do about it.

Sam H. Traugher, M.D.
Hopkinsville

Dear Editor:

The desire to maintain a pleasing appearance throughout our lives is present in each of us. There isn't any way known at the present time to prevent the process of aging; nevertheless, each of us strives to appear at our best. As we age, sags, folds, wrinkles, protrusions, hollows, etc., develop in and on our body surfaces. Proper diet, rest, and exercise are all very important in staving this aging process; however, these cannot prevent the aging process. Many surgical procedures are part of the armamentarium of the Plastic Surgeon in helping his patients to maintain, improve, or preserve their appearance. Face lifts, stomach, thigh, arm and buttock lifts, breast enlargements or reductions, etc., are but some of the procedures utilized.

One of the more exciting developments in Cosmetic Plastic Surgery over the past several years has been the chemical face peel or chemical face lift. The eradication of fine facial wrinkles, pigmentation (brown spots), and the general rejuvenation of facial skin obtained with this procedure is truly remarkable and long lasting. It can be performed in a hospital or office operating room on an ambulatory basis. Healing is relatively rapid and no incisions are performed. At times, I recommend it instead of a face lift; other times I recommend that a patient have both a face lift and a face peel. This like any other surgical procedure has definite indications and limitations.

In summary, I think that the chemical face lift or chemical face peel is an excellent procedure and truly feel that this is one of our main staves in fighting the ravages of time.

Louis M. Muldrow, Jr., M.D.
Lexington



EDITORIALS



Drug Advertisement

ETHICAL drug advertising has come into hard times with closer governmental supervision and control. It is certain that most drug companies make a sincere effort to properly inform physicians but also it is certain that their biggest problem and main objective is to attract the attention and then the loyalty of physicians who so completely influence the rate of movement of the products from the company to its clients.

In addition to the more explicit and complete advertisements in medical journals, detail men who regularly engage in personal contact with physicians must be a successful method for drug advertising since they continue to flourish.

Some drug companies have sponsored and completely paid for visits of senior medical students to their factories and this undoubtedly fosters a sense of loyalty in many young doctors.

More recently and with very great success some companies have undertaken regular sponsorship of large groups of physicians to vacation resorts for five or six days. Several groups from several locations occupy the resort simultaneously, and are continually replaced by other groups until the entire country has been

served. That operation then closes and another one is begun at a different location so that one or two trips from a representative location may be made every year.

The group is enlisted by mail. The fee is very reasonable and includes transportation, hotel accommodations, breakfast and dinner every day, and the use of luxury sporting facilities of very fine resort hotels. Transportation is by charter airplanes. Transportation between airports and hotel and registration in the hotels is also arranged. Several hours of medical instruction, two or three hours for three mornings during the period are arranged and the quality of medical material presented is said to be quite good.

One company claims to have all of its advertising funds diverted into this one public relations activity and is very satisfied with the results. The physicians who make such trips gain a very fine vacation at a reasonable rate. The notion is clever and the energy behind it great. However, we think that drug companies and physicians should continue to respect medical journal advertising as the most informative and sound method, not to be replaced by detail men or vacation seminars.

AEO

(Signed or initialed editorials represent the opinion of the writer, and do not necessarily reflect either the opinion or the official policy of the Kentucky Medical Association as a group.)



ORGANIZATION SECTION



1974 Emergency Care Seminar Approved for CME Credit

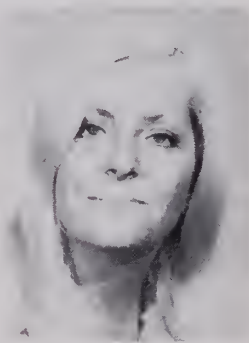
Several new features have been added to this year's Emergency Health Care Seminar to be held May 30-31 at the Ramada Inn/Bluegrass Convention Center in Louisville.

The program, sponsored by KMA, the Kentucky Nurses Association, Kentucky Hospital Association, and the Kentucky Chapter, American College of Emergency Physicians, has been approved for 13½ credit hours in Category I of the AMA Physician's Recognition Award. Continuing Medical Education credit has also been applied for from the Kentucky Academy of Family Physicians, KNA, and the Kentucky Chapter, American College of Emergency Physicians.

A simulated traffic accident will be the basis for a rescue demonstration on Thursday, May 30. The latest techniques of extrication, on-the-scene care, and air evacuation will be demonstrated. A workshop on cardiopulmonary resuscitation and respiratory distress syndrome will be another highlight of the two-day event.



Captain Waters



Miss Romano

Captain John M. Waters, Director of the Department of Public Safety in Jacksonville, will be the featured speaker at the luncheon on Thursday, May 30. The luncheon speaker for Friday, May 31, will be Teresa Romano, R.N., Operations Director of the State of Illinois Department of Public Health, Chicago. Miss Romano will speak on "Education for the Nurse in Emergency Care."

There will be a \$10 registration fee for each day. Further details may be obtained from the KMA Headquarters Office. A pre-registration form for this program is on page 225 for your convenience.

A program outline for the annual seminar follows:

Emergency Health Care Seminar Program Outline Released

THURSDAY, MAY 30

Morning Session

Opening Ceremonies

"*Ophthalmologic Emergencies*"—Arthur Keeney, M.D., Louisville

"*Venomous Stings and Bites*"—Robert Arnold, M.D., Louisville

"*Burns*"—Harry Stambaugh, M.D., Louisville

"*Tetanus*"—William Ramage, Jr., M.D., Louisville

"*The Unconscious Patient*"

Rescue Demonstration

Luncheon

Afternoon Session

Cardiopulmonary Resuscitation and Respiratory Distress Syndrome Workshop—including practical experience in cardiopulmonary resuscitation

FRIDAY, MAY 31

Morning Session

"*Behavioral Emergency*" Panel

"*Head and Facial Trauma*"—Andrew Moore, M.D., Lexington

"*Medical-Legal Problems*"—Carl Wedekind, Louisville

"*Roadside to Bedside*" Panel

Luncheon

Afternoon Session

"*Urologic Emergencies*"—Lyndon Goode, M.D., Hopkinsville

"*Pediatric Surgical Emergencies*"—Robert Belin, M.D., Lexington

"*Pediatric Medical Emergencies*"—Mary A. Smith, M.D., Louisville

"*Extremity Injuries*" Panel

Adjournment

Focus On High Blood Pressure

May, 1974, is being recognized as National High Blood Pressure Month. The purpose of this national focus is to make the public and health professionals aware of the prevalence and danger of high blood pressure, that it is asymptomatic in nature, and that high blood pressure can and must be controlled through continuing treatment by a qualified physician.

Nationwide activities are being planned through the coordinated efforts of many of America's private, professional, voluntary, state and federal organizations.

Healing nicely, but it still **HURTS**

HERE

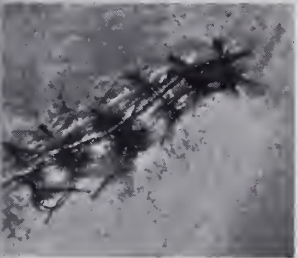
Burns



parenteral analgesia
longer required,
rin Compound with
ne usually provides the
needed.

HERE

Sutures



rin Compound with
one is effective for
eral as well as soft tissue
—provides an antitussive
rs in addition to its
opt, predictable
agesia.

Prescribing convenience:
p to 5 refills in 6 months,
ur discretion (unless
s icted by state law); by
e hone order in many states.

rin Compound with
icine **No. 3**, codeine
phosphate* 32.4 mg. (gr. ½);
4, codeine phosphate*
mg. (gr. 1). *Warning—
a be habit-forming. Each
ot also contains: aspirin
½, phenacetin gr. 2½,
fine gr. ½.

Burroughs Wellcome Co.
Research Triangle Park
North Carolina 27709



HERE
Nasal fracture

EMPIRIN[®] **COMPOUND** **̄ CODEINE**

#3, codeine phosphate* (32.4 mg.) gr. ½
#4, codeine phosphate* (64.8 mg.) gr. 1



For relief of low back pain* (including intervertebral disc)

Bed rest, moist heat, exercise and 'Soma 350' (carisoprodol) can help relax muscle spasm, relieve mild-to-moderate pain, restore range of motion.*

Economically...with only one tablet q.i.d.

Measure the results yourself.
(Wallace will even send you a complimentary goniometer.)

* **Indications:** Based on a review of this drug by the National Academy of Sciences—National Research Council and/or other information, FDA has classified the indication as follows:

"Possibly" effective: for symptomatic relief in conditions characterized by skeletal muscle spasm and mild to moderate pain.

Final classification of this indication requires further investigation.

Contraindications: Acute intermittent porphyria and allergic or idiosyncratic reactions to carisoprodol or related compounds such as meprobamate, mebutamate, tybamate.

Warnings: *Idiosyncratic Reactions:* Rarely, first dose has been followed by extreme weakness, transient quadriplegia, dizziness, ataxia, temporary vision loss, diplopia, mydriasis, dysarthria, agitation, euphoria, confusion, disorientation. Symptoms usually subside during the next several hours. Supportive and symptomatic therapy, including hospitalization, may be necessary.

Pregnancy and Lactation: Safe use not established; weigh

potential benefits against potential hazards in pregnancy, mothers, or women of childbearing potential.

Children Under Five: Drug not recommended.

Potentially Hazardous Tasks: Driving a motor vehicle or operating machinery.

Additive Effects: Possible additive effects between carisoprodol and other CNS depressants or psychotropic drugs.

Drug Dependence: Use cautiously in addiction-prone patients.

Precautions: To avoid excess accumulation, use caution in patients with compromised liver or kidney function.

Adverse Reactions: *Central Nervous System:* Drowsiness, dizziness, vertigo, ataxia, tremor, agitation, irritability, headache, depressive reactions, syncope, insomnia.

Allergic or Idiosyncratic: Usually seen after 1-4 doses in patients not previously exposed, e.g., rash, erythema multiforme, pruritus, eosinophilia, fixed drug eruption with cross reaction to meprobamate. More severe manifestations: asthma, fever, weakness, dizziness, angioneurotic edema, smarting eyes, hypotension, anaphylactoid shock. Stop drug, treat symptomatically (e.g., possible use of epinephrine, antihistamines and in severe cases corticosteroids).

Cardiovascular: Tachycardia, postural hypotension, facial flushing.

Gastrointestinal: Nausea, vomiting, hiccup, epigastric discomfort.

Hematologic: Leukopenia and pancytopenia (on carisoprodol plus other drugs).

Usual Adult Dosage: One 350 mg tablet three times daily and at bedtime.

Overdosage: Has produced stupor, coma, shock, respiratory depression, and, very rarely, death. Overdosage of carisoprodol plus alcohol or other CNS depressants or psychotropic drugs can be additive. Empty stomach, treat symptomatically; cautiously give respiratory assistance, CNS stimulants, pressor agents as needed. Carisoprodol is metabolized in the liver and excreted by the kidney. Diuresis and dialysis have been used successfully with related drug meprobamate. Carefully monitor urinary output; avoid overhydration; observe for possible reduction to incomplete gastric emptying and delayed absorption.

Before prescribing, consult package circular or latest PDR information.

Rev. 5/77

WALLACE PHARMACEUTICALS Cranbury, N. J. 08510

Soma[®] 350 its power made manifest (carisoprodol) 350mg tablets



measured in movement

**All of these mammals, except one,
can synthesize vitamin C**



Woman (man) cannot.

Human beings can neither synthesize vitamin C nor store most of the water soluble vitamins. They should be replenished continuously.

Normally, people accomplish this in their daily diet. But under conditions of illness, stress, in convalescence or following surgery, vitamin stores may be depleted or metabolic demands increased.

In such cases, Surbex-T may be indicated. Surbex makes it easy and convenient to restore the water soluble vitamins. Each tablet provides 500 mg. vitamin C plus high potency B-complex.

Where nutritional status must be preserved, Surbex-T can help restore what the body *cannot* effectively store. 403482



SURBEX-T[®] 500 mg. of Vitamin C with High Potency B-Complex

Restores what the body cannot effectively store

**KEMPAC Presented Two Awards
At AMPAC Workshop**

The AMA/AMPAC Public Affairs Workshop held March 16 and 17, 1974 in Washington, D. C. was attended by 16 KEMPAC representatives.

KEMPAC was presented the second place Woman Membership Award and third place Sustaining Membership Award at the Annual Awards Banquet. Political satirist Mark Russell entertained in his excellent fashion, according to those in attendance.

The program included panels and open forum discussions on legislation and political campaigns. Legislators who had received campaign guidance as well as financial assistance from AMPAC and State Pacs were participants. A panel on "Politics for 1974" was moderated by Hoyt D. Gardner, M.D., Louisville, and was discussed by Richard M. Scammon, Director, Elections Research Center, Governmental Affairs Institute; Neil Peirce, political correspondent and author; and David Broder, Washington Post Correspondent.

The Kentucky delegation to the Workshop included Doctor Gardner, AMPAC Board member and Mrs. Gardner, Treasurer of KEMPAC; Fred C. Rainey, M.D., President of KMA and Immediate Past Chairman of KEMPAC; Donald C. Barton, M.D., Secretary of KEMPAC and Mrs. Barton; Bennett Crowder, M.D., Assistant Treasurer of KEMPAC; Mrs. William Pearson, President,

Woman's Auxiliary to KMA; Mrs. Richard McElvein, President-Elect of WA-KMA; Mrs. William H. Keller, KEMPAC Director and Doctor Keller; Mrs. William N. Richardson, KEMPAC Director and Doctor Richardson; Robert Robbins, M.D., KEMPAC Director; Mrs. George Schafer, Immediate Past President of WA-KMA and Coordinator for Members at Large of WA-KMA; Mrs. Robert Taylor, Legislative Chairman of WA-KMA; and Gilbert L. Armstrong, of KMA staff.

**Public Relations Meeting Set
For Office Assistants**

A public relations program designed specifically for the office assistant will be held June 13 at the Ramada Inn/Bluegrass Convention Center in Louisville.

Sponsored by the KMA Public Relations Committee and the Kentucky Chapter, American Association of Medical Assistants, the program will include presentations by professionals on telephone techniques, malpractice and the office assistant, and the art of dealing with the public, and specifically the patient.

James B. Holloway, Jr., M.D., Lexington, Chairman of the Public Relations Committee, is hopeful that physicians will sponsor an office assistant for this one-day program. A \$10 registration fee will be charged and details are available from the KMA Headquarters Office.

PRE-REGISTRATION

1974 Emergency Health Care Seminar

Name or Names _____

Hospital or Organization _____

Address _____

Registration fee enclosed (\$10 per registrant per day or \$20 for both days) _____
(Registration covers cost of any materials, coffee breaks, and luncheons)

Mail to: Emergency Health Care Seminar
Kentucky Medical Association
3532 Ephraim McDowell Drive
Louisville, Kentucky 40205

NEWS ITEMS

Stanley Hammons, M.D., Frankfort, was appointed Deputy Commissioner of Health Services for Kentucky. Doctor Hammons is an assistant clinical professor in psychiatry at the University of Louisville and University of Kentucky.

Phil Aaron, Louisville, third-year medical student at the University of Louisville School of Medicine, was recently elected Speaker of the House of Delegates of the Student American Medical Association at their annual convention in Dallas.

Robert C. Long, M.D., Louisville, has recently been selected as a Regional Delegate to the House of Delegates of the American Hospital Association. Doctor Long, a former AMA Trustee, is Chairman of the Division of Human Sexuality of the University of Louisville School of Medicine.

Endocrine Manifestations of Lung Tumors

(Continued from page 211)

12. Orth, D.N. and Liddle, G.W. Results in treatment in 108 patients with Cushing's syndrome, *NEJM*. 285:243-247, 1971.

13. Muggia, F.M. and Heinemann, H.E. Hypercalcemia associated with neoplastic disease, *Ann. Int. Med.* 73:281-290, 1970.

14. Fulmer, D.H., Dimich, A.B., Rothschild, E.O., and Myers, W.P.L. Treatment of hypercalcemia, *Arch. Int. Med.* 129:923-930, 1972.

15. Kennedy, B.J. Metabolic and toxic effects of mithramycin during tumor therapy, *Am. J. Med.* 49:494-502, 1970.

16. Suki, W.N., Yium, J.J., Von Minden, M., Saller-Herbert, C., Eknoyan, G., and Martinez-Maldonado, M. Acute treatment of hypercalcemia with furosemide, *NEJM* 283-836-840, 1970.

MAKE PLANS NOW—

1974

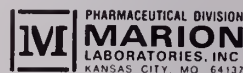
Kentucky Medical Association ANNUAL MEETING

September 24, 25, 26

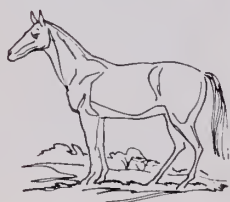
Ramada Inn/Bluegrass Convention Center
Louisville

At Your Service in The Bluegrass State

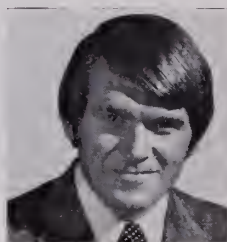
In the state* that got its
nickname from the dusty-blue
blossoms of the grass
around Lexington ...



is represented by ...



Larry Farmer



Lee Fuqua



John McKinney



Bill Nicol



Larry Plumlee



Jon Swanson

*For more information on the history of your
state, write Professional Services,
Marion Laboratories, Inc.

These men bring you ...

In Memoriam

SAMUEL SHELTON WATKINS, M.D.
Louisville
1888-1974

Samuel Shelton Watkins, M.D., Louisville, died on March 17 at the age of 85. A 1914 graduate of the Johns Hopkins University Medical School, Doctor Watkins was a retired ear, nose and throat specialist. A member of the American College of Surgeons, Doctor Watkins was an emeritus member of the Jefferson County Medical Society and the Kentucky Medical Association.

CPT-3 Available

The third edition of the Current Procedural Terminology (CPT-3) is available to all physicians from the American Medical Association. Cost of the 1974 version is \$5.00.

PHYSICIANS

Private practice (solo, partnerships, groups) opportunities exist in several communities within the state of Kentucky (Morganfield, Mayfield, Bowling Green, and Frankfort). As a public service to these communities, we are performing a free, no obligation, service acting as a liaison between physicians interested in practice opportunities and communities in need of their services. These communities have modern, JCAH approved hospitals, modern offices, and recognized needs for additional physicians.

For details call collect 615-327-9551 or write with C.V. to:

*E. J. Ryan, Jr., Corporate Director,
Medical Relations
Hospital Corporation of America
One Park Plaza
Nashville, Tennessee 37203*

**Its comfort
your prescription
for nicotinic acid**



THE OPTIMAL-DOSE, 400-mg, timed-release NICO-400® (nicotinic acid) capsule provides • Controlled flushing for the desired effects without therapy-limiting side effects. • Convenient b.i.d. dosage that's less likely to be forgotten. • The economy of nicotinic acid medication.

For comfort wherever nicotinic acid is used

NICO-400®
(nicotinic acid) Plateau CAPS®

Description: Each capsule contains 400 mg of nicotinic acid in a special base that provides a prolonged systemic effect. **Indications:** NICO-400® is recommended for all disease states in which nicotinic acid has been used. These include conditions associated with deficient circulation and for use in the correction of nicotinic acid deficiencies. **Contraindications:** Individuals with a hypersensitivity to nicotinic acid, severe hypotension or hemorrhaging. **Warnings:** Use with caution in those patients with history of peptic ulcer, severe diabetes, impaired gall bladder or liver functions and in pregnant women. **Adverse Reactions:** Patients should be informed of the short-lived reactions experienced with nicotinic acid therapy: cutaneous flushing, a sensation of warmth, tingling and itching of the skin, increased gastrointestinal motility and sebaceous gland activity. **Dosage and Administration:** One capsule every 12 hours or as directed by physician. **Caution:** Federal law prohibits dispensing without prescription. **How Supplied:** Bottles of 100 capsules.

Another patient benefit product from

PHARMACEUTICAL DIVISION
MARION
LABORATORIES INC.
KANSAS CITY, MISSOURI 64116

What's on your patient's face..

may be more important than his chief complaint

Patient P.T.* seen on 3/29/67 shows typical lesions of moderately severe keratoses. Note residual scarring on ridge of nose from previous cryosurgical and electrosurgical procedures.



Patient P.T.* seen on 6/12/67, seven weeks after discontinuation of 5% FU cream. Reaction has subsided. Residual scarring not seen except that due to prior surgery. Inflammation has cleared and face is clear of keratotic lesions.

*Data on file,
Hoffmann-La Roche
Inc., Nutley, N.J



he lesions on his face
e solar/actinic—
-called "senile" keratoses...
nd they may be premalignant.

ar, actinic or senile keratoses

e lesions may be called by several names, but they
ly can be identified by the following characteris-
The typical lesion is flat or slightly elevated, of a
nish or reddish color, papular, dry, rough, adherent
sharply defined. They commonly occur as multiple
s, chiefly on the exposed portions of the skin.

quence of therapy— ctivity of response

several days of therapy with Efudex® (fluorouracil),
ema may begin to appear in the area of the lesions;
reaction usually reaches its height of unsightliness
discomfort within two weeks, declining after dis-
uation of therapy. This reaction occurs in affected
Since the response is so predictable, lesions that
t respond should be biopsied.

ceptable results

ment with Efudex provides highly favorable cos-
results. Incidence of scarring is low. This is par-
rly important with multiple facial lesions. Efudex
d be applied with care near the eyes, nose and mouth.

Before prescribing, please consult complete product
information, a summary of which follows:

Indications: Multiple actinic or solar keratoses.

Contraindications: Patients with known hypersensitivity
to any of its components.

Warnings: If occlusive dressing used, may increase in-
flammatory reactions in adjacent normal skin. Avoid pro-
longed exposure to ultraviolet rays. Safe use in pregnancy
not established.

Precautions: If applied with fingers, wash hands immedi-
ately. Apply with care near eyes, nose and mouth. Lesion
failing to respond or recurring should be biopsied.

Adverse Reactions: Local—pain, pruritus, hyperpigmen-
tation and burning at application site most frequent; also
dermatitis, scarring, soreness and tenderness. Also re-
ported—insomnia, stomatitis, suppuration, scaling, swell-
ing, irritability, medicinal taste, photosensitivity,
lacrimation, leukocytosis, thrombocytopenia, toxic
granulation and eosinophilia.

Dosage and Administration: Apply sufficient quantity to
cover lesion twice daily with nonmetal applicator or suit-
able glove. Usual duration of therapy is 2 to 4 weeks.

How Supplied: Solution, 10-ml drop dispensers—contain-
ing 2% or 5% fluorouracil on a weight/weight basis,
compounded with propylene glycol, tris(hydroxymethyl)-
aminomethane, hydroxypropyl cellulose, parabens (methyl
and propyl) and disodium edetate.

**Cream, 25-Gm tubes—containing 5% fluorouracil in a
vanishing cream base consisting of white petrolatum,
stearyl alcohol, propylene glycol, polysorbate 60 and
parabens (methyl and propyl).**



Roche Laboratories
Division of Hoffmann-La Roche Inc.
Nutley, N.J. 07110

his patient's lesions were resolved with

Efudex®
fluorouracil/Roche®

5% cream/solution...a Roche exclusive

Synthroid

(sodium levothyroxine)

the smooth road to thyroid replacement therapy.

Synthroid is T₄.
It provides your patients with
what is needed for complete
thyroid replacement therapy.



Free Tab-Minder sample
packages available
from Flint Professional
Services Department.

Indications: SYNTHROID (sodium levothyroxine) is specific replacement therapy for diminished or absent thyroid function resulting from primary or secondary atrophy of the gland, congenital defect, surgery, excessive radiation, or antithyroid drugs. Indications for SYNTHROID (sodium levothyroxine) **Tablets** include myxedema, hypothyroidism without myxedema, hypothyroidism in pregnancy, pediatric and geriatric hypothyroidism, hypopituitary hypothyroidism, simple (nontoxic) goiter, and reproductive disorders associated with hypothyroidism. SYNTHROID (sodium levothyroxine) **for Injection** is indicated for intravenous use in myxedematous coma and other thyroid dysfunctions where rapid replacement of the hormone is required. The injection is also indicated for intramuscular use in cases where the oral route is suspect or contraindicated due to existing conditions or to absorption defects, and when a rapid onset of effect is not desired.

Precautions: As with other thyroid preparations, an overdosage of SYNTHROID (sodium levothyroxine) may cause diarrhea or cramps, nervousness, tremors, tachycardia, vomiting and continued weight loss. These effects may begin after four or five days or may not become apparent for one to three weeks. Patients receiving the drug should be observed closely for signs of thyrotoxicosis. If indications of overdosage appear, discontinue medication for 2-6 days, then resume at a lower dosage level. In patients with diabetes mellitus, careful observations should be made for changes in insulin or other antidiabetic drug dosage requirements. If hypothyroidism is accompanied by adrenal insufficiency, such as Addison's Disease (chronic adrenocortical insufficiency), Simmonds's Disease (panhypopituitarism) or Cushing's syndrome (hyperadrenalism), these dysfunctions must be corrected prior to and during SYNTHROID (sodium levothyroxine) administration. The drug

should be administered with caution to patients with cardiovascular disease; development of chest pains or other aggravations of cardiovascular disease requires a reduction in dosage.

Contraindications: Thyrotoxicosis, acute myocardial infarction. **Side effects:** The effects of SYNTHROID (sodium levothyroxine) therapy in being manifested. Side effects, when they occur, are secondary to increased rate of metabolism; sweating, heart palpitation, or without pain, leg cramps, and weight loss. Diarrhea, vomiting, and nervousness have been observed. Myxedematous patients with heart disease have died from abrupt increase in dosage of thyroid drugs. Careful observation of the patient during the beginning of thyroid therapy will alert the physician to possible side effects.

It has been shown that *Synthroid* (T₄) converts to T₃ at the cellular level to supply metabolic needs.^{1, 2}

1 *Synthroid* is T₄.

2 Because T₄ converts to T₃ at the cellular level, it provides full thyroid replacement at maintenance doses.^{1, 2}

3 T₄ hormone content is controlled by chemical assay.

4 *Synthroid* is assayed chemically; no biologic test is necessary to measure potency.

5 *Synthroid* provides predictable results when used with current thyroid function tests.

6 *Synthroid* is the most prescribed brand name of thyroid in the U. S. and Canada.

7 Sodium levothyroxine in *Synthroid* tablets is chemically pure. It does not contain any animal gland parts.

8 When stored properly, *Synthroid* has a longer shelf life than desiccated thyroids.

9 On a daily basis, *Synthroid* is cost competitive with other thyroid products.

The smooth road to
thyroid replacement therapy.

Synthroid[®]
(sodium levothyroxine)

cases with side effects, a reduction of
followed by a more gradual adjustment
will result in a more accurate indication
patient's dosage requirements without the
risk of side effects.

Indication and Administration: The activity of
n. SYNTHROID (sodium levothyroxine)
is equivalent to approximately one grain
of U.S.P. Administer SYNTHROID tablets
as the daily dose. In hypothyroidism with-
out myxedema, the usual initial adult dose is
0.1 mg. daily, and may be increased by 0.1 mg.
every 3 days until proper metabolic balance is
achieved. Clinical evaluation should be made
by T₄ and PBI measurements about every 90
days. Final maintenance dosage will usually
range from 0.2-0.4 mg. daily. In adult myxedema,
the initial dose should be 0.025 mg. daily. The

dose may be increased to 0.05 mg. after two
weeks and to 0.1 mg. at the end of a second two
weeks. The daily dose may be further increased
at two-month intervals by 0.1 mg. until the opti-
mum maintenance dose is reached (0.1-1.0 mg.
daily).

Supplied: Tablets: 0.025 mg., 0.05 mg., 0.1 mg.,
0.15 mg., 0.2 mg., 0.3 mg., 0.5 mg., scored and
color-coded, in bottles of 100, 500, and 1000. In-
jection: 500 mcg. lyophilized active ingredient
and 10 mg. of Mannitol, U.S.P., in 10 ml. single-
dose vial, with 5 ml. vial of Sodium Chloride In-
jection, U.S.P., as a diluent. SYNTHROID
(sodium levothyroxine) for Injection may be ad-
ministered intravenously utilizing 200-400 mcg.
of a solution containing 100 mcg. per ml. If sig-
nificant improvement is not shown the following
day, a repeat injection of 100-200 mcg. may be
given.

1. Braverman, L. E., Ingbar, S. H., and Sterling,
K.: Conversion of Thyroxine (T₄) to Triiodothyro-
nine (T₃) in Athyreotic Human Subjects, *J. Clin.
Invest.* 49:855-64, 1970.

2. Surks, M. I., Schadow, A. R., and Oppen-
heimer, J. H.: A New Radioimmunoassay for
Plasma L-Triiodothyronine: Measurements In
Thyroid Disease and in Patients Maintained on
Hormonal Replacement. *J. Clin. Invest.* 51:3104-
13, 1972.



FLINT LABORATORIES
DIVISION OF TRAVENOL LABORATORIES, INC.
Deerfield, Illinois 60015

Application

FOR SPACE IN THE SCIENTIFIC EXHIBIT SECTION

1974 Annual Meeting

Kentucky Medical Association

Ramada Inn-Bluegrass Convention Center

Louisville, Kentucky

September 24, 25, 26

Fill Out and Mail to:

ARNOLD C. WILLIAMS, M.D., Chairman

Committee on Scientific Exhibits

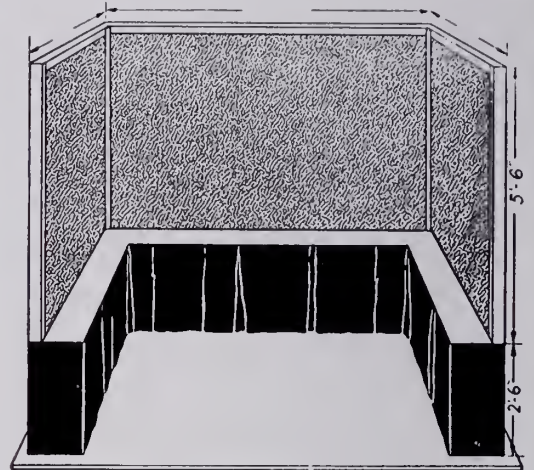
Kentucky Medical Association

3532 Ephraim McDowell Drive

Louisville, Kentucky 40205

Applications for space should be received
before July 1, 1974.

The Kentucky Medical Association welcomes
and supports scientific exhibits as a facet of
continuing postgraduate education.



1. Title of exhibit
2. Name(s) of exhibitor(s)
 Address
 Professional title
3. Institution if other than exhibitor
4. Amount of linear footage required
 (all side walls are four feet)
 SHELF DESIRED? ____Yes ____No
5. Do you wish lighting other than the bracket lights provided? ____Yes ____No.
 (SPOTLIGHTS ARE NOT FURNISHED)

6. Will summary printed matter be available or obtainable for the interested physician?
7. Indicate sources of assistance provided to you in connection with the exhibit

8. Has this exhibit been displayed before? If so, when & where?
9. Please attach a brief outline which includes a general idea of your exhibit.

Date

.....
Signature of Applicant

KMA provides, without cost to the exhibitor, simple shelves, bracket lights and a title sign, provided all items are approved in advance by the Scientific Exhibits Committee. Transportation and erection costs are the responsibility of the exhibitor. View Boxes, furniture, decorations, etc., may be rented, if desired, by applying directly to the Joseph T. Griffin Company, 704 West Main Street, Louisville, Kentucky 40202.

Maybe the patient's self-diagnosis is right. He could have hay fever. But that bright red nasal mucosa, along with the thick discharge and excoriation around the nares, strongly suggests that the main problem is a cold. Hay fever or another form of allergic rhinitis may or may not be an underlying factor.

If a complete history and examination rule out allergic rhinitis, the long-term outlook will be a lot more favorable than his own "diagnosis" would have indicated.

But right now, whether he's got allergic rhinitis or a cold, he's suffering from the same irritat-

ing symptoms of drip, congestion and stuffiness. Try DIMETAPP EXTENTABS®. They're formulated to relieve these symptoms without much chance of causing drowsiness or overstimulation. Your patients will appreciate the 24-hour relief they can get from just one tablet every 12 hours.

Cold or



Allergy?

Whether it's a cold or an allergy, Dimetapp Extentabs® effectively relieve stuffiness, drip and congestion.

INDICATIONS: Dimetapp Extentabs are indicated for symptomatic relief of allergic manifestations of upper respiratory illnesses, such as the common cold, seasonal allergies, sinusitis, rhinitis, conjunctivitis and otitis. In these cases it quickly reduces inflammatory edema, nasal congestion and excessive upper respiratory secretions, thereby affording relief from nasal stuffiness and postnasal drip.

CONTRAINDICATIONS: Hypersensitivity to antihistamines of the same chemical class. Dimetapp Extentabs are contraindicated during pregnancy and in children under 12 years of age. Because of its drying and thickening effect on the lower respiratory secretions, Dimetapp is not recommended in the treatment of bronchial asthma. Also, Dimetapp Extentabs are contraindicated in concurrent MAO inhibitor therapy.

WARNINGS: *Use in children:* In infants

and children particularly, antihistamines in overdosage may produce convulsions and death.

PRECAUTIONS: Administer with care to patients with cardiac or peripheral vascular diseases or hypertension. Until the patient's response has been determined, he should be cautioned against engaging in operations requiring alertness such as driving an automobile, operating machinery, etc. Patients receiving antihistamines should be warned against possible additive effects with CNS depressants

such as alcohol, hypnotics, sedatives, tranquilizers, etc.

ADVERSE REACTIONS: Adverse reactions to Dimetapp Extentabs may include hypersensitivity reactions such as rash, urticaria, leukopenia, agranulocytosis, and thrombocytopenia; drowsiness, lassitude, giddiness, dryness of the mucous membranes, tightness of the chest, thickening of bronchial secretions, urinary frequency and dysuria, palpitation, hypotension/hypertension, headache, faintness, dizziness, tinnitus, incoordination, visual disturbances, mydriasis, CNS-depressant and (less often) stimulant effect, anorexia, nausea, vomiting, diarrhea, constipation, and epigastric distress.

HOW SUPPLIED: Light blue Extentabs in bottles of 100 and 500.

Dimetapp Extentabs®

Dimetane® (brompheniramine maleate), 12 mg.; phenylephrine HCl, 15 mg.; phenylpropanolamine HCl, 15 mg.

A-H-ROBINS

A. H. Robins Company, Richmond, Va. 23220

when pain goes on... and on... and on—



For the patient with a terminal illness, PAIN past, present, and future can dominate his thoughts until it becomes almost an obsession. The more he is aware of the pain he is now experiencing, the more difficult it is to erase his memory of yesterday's pain, and to allay his fearful anticipation of tomorrow's pain.

Surely the last thing this patient needs is an analgesic containing caffeine to stimulate the senses and heighten pain awareness. A far more logical choice is Phenaphen with Codeine. The sensible formula provides $\frac{1}{4}$ grain of phenobarbital to take the nervous "edge" off, so the rest of the formula can help control the pain more effectively. Don't you agree, Doctor, that psychic distress is an important factor in most of your terminal and long-term convalescent patients?

the analgesic formula that calms instead of caffeinates

Phenaphen[®] with Codeine

Phenaphen with Codeine No. 2, 3, or 4 contains: Phenobarbital ($\frac{1}{4}$ gr.), 16.2 mg. (warning: may be habit forming); Aspirin ($2\frac{1}{2}$ gr.), 162.0 mg.; Phenacetin (3 gr.), 194.0 mg.; Codeine phosphate, $\frac{1}{4}$ gr. (No. 2), $\frac{1}{2}$ gr. (No. 3) or 1 gr. (No. 4) (warning: may be habit forming).

Indications: Provides relief in severer grades of pain, on low codeine dosage, with minimal possibility of side effects. Its use frequently makes unnecessary the use of addicting narcotics. **Contraindications:** Hypersensitivity to any of the components. **Precautions:** As with all phenacetin-containing products, excessive or prolonged use should be avoided. **Side effects:** Side effects are uncommon, although nausea, constipation and drowsiness may occur. **Dosage:** Phenaphen No. 2 and No. 3—1 or 2 capsules every 3 to 4 hours as needed; Phenaphen No. 4—1 capsule every 3 to 4 hours as needed. For further details see product literature.

Phenaphen with Codeine is now classified in Schedule III, Controlled Substances Act of 1970. Available on written or oral prescription and may be refilled 5 times within 6 months, unless restricted by state law.

A. H. Robins Company, Richmond, Va. **A-H-ROBINS**



When their worst subject is acne

many things may help:
patient education, antibiotics,
diet, cleaner skin and the

Clearasil® formula
sulfur, resorcinol, bentonite

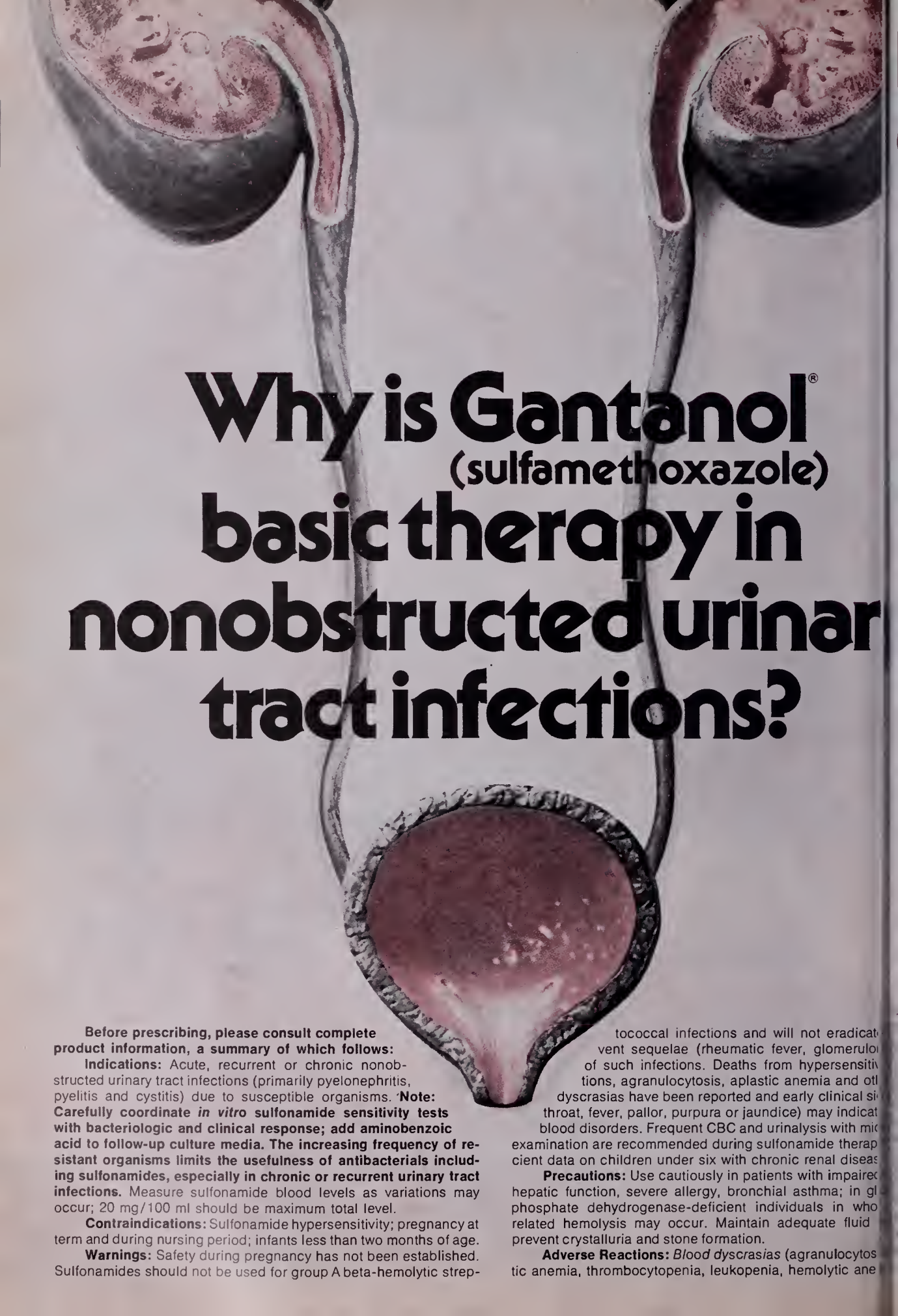
Basic peeling/drying formulation—plus
the proven sebum-absorbing action of bentonite—
for the daily routine of anti-acne therapy.



Clearasil: therapeutically sound combinations
of professionally recommended ingredients
Cosmetically suited to teen-ager's needs
Low cost—ready availability

For a supply of Clearasil "self-starter" samples
and/or a supply of the patient education booklet,
"The Many Faces of Acne Therapy," simply write
to the following address: Vick Chemical Company,
22 East 42nd Street, New York, N.Y. 10017.
Attention: S. M. Yanklowitz.

	Regular Tinted	Vanishing Formula
Sulfur	8%	3%
Resorcinol	2%	2%
Bentonite	11.5%	10%



Why is Gantanol[®] (sulfamethoxazole) basic therapy in nonobstructed urinary tract infections?

Before prescribing, please consult complete product information, a summary of which follows:

Indications: Acute, recurrent or chronic nonobstructed urinary tract infections (primarily pyelonephritis, pyelitis and cystitis) due to susceptible organisms. **Note:** Carefully coordinate *in vitro* sulfonamide sensitivity tests with bacteriologic and clinical response; add aminobenzoic acid to follow-up culture media. The increasing frequency of resistant organisms limits the usefulness of antibacterials including sulfonamides, especially in chronic or recurrent urinary tract infections. Measure sulfonamide blood levels as variations may occur; 20 mg/100 ml should be maximum total level.

Contraindications: Sulfonamide hypersensitivity; pregnancy at term and during nursing period; infants less than two months of age.

Warnings: Safety during pregnancy has not been established. Sulfonamides should not be used for group A beta-hemolytic strep-

tococcal infections and will not eradicate vent sequelae (rheumatic fever, glomerulonephritis) of such infections. Deaths from hypersensitizations, agranulocytosis, aplastic anemia and other dyscrasias have been reported and early clinical signs (throat, fever, pallor, purpura or jaundice) may indicate blood disorders. Frequent CBC and urinalysis with microscopic examination are recommended during sulfonamide therapy. Insufficient data on children under six with chronic renal disease.

Precautions: Use cautiously in patients with impaired hepatic function, severe allergy, bronchial asthma; in glucose phosphate dehydrogenase-deficient individuals in whom related hemolysis may occur. Maintain adequate fluid intake to prevent crystalluria and stone formation.

Adverse Reactions: Blood dyscrasias (agranulocytosis, aplastic anemia, thrombocytopenia, leukopenia, hemolytic ane-

Because it is considered a good choice...

- for efficacy in nonobstructed cystitis, pyelonephritis and pyelitis
- for control of *E. coli*, *Klebsiella-Aerobacter*, *Staph. aureus*, *Proteus mirabilis* and, less frequently, *Proteus vulgaris*
- for prompt antibacterial blood and urine levels in from 2 to 3 hours after initial 2-gram adult dose
- for economical around-the-clock coverage
- for maximum patient cooperation with easy-to-remember B.I.D./T.I.D. dosage

Basic Therapy **Gantanol[®]** (sulfamethoxazole) Tablets/Suspension (0.5 Gm) (0.5 Gm/teasp.)

hypoprothrombinemia and methemoglobinemia); *allergic* (erythema multiforme, skin eruptions, epidermal necrolysis, serum sickness, pruritus, exfoliative dermatitis, anaphylactoid reactions, periorbital edema, conjunctival and scleral edema, photosensitization, arthralgia and allergic myocarditis); *gastrointestinal reactions* (nausea, emesis, abdominal pains, hepatic dysfunction, diarrhea, anorexia, pancreatitis and stomatitis); *CNS reactions* (headache, peripheral neuritis, mental depression, convulsions, hallucinations, tinnitus, vertigo and insomnia); *miscellaneous* (drug fever, chills, toxic nephrosis with oliguria and periarthritis nodosa and L.E. phenomenon). Due to certain similarities with some goitrogens, diuretics (acetazolamide) and oral hypoglycemic agents, sulfonamides have rare instances of goiter production, diuresis and hypoglycemia as well as thyroid malignancies in rats following long-term administration. Cross-sensitivity with these agents may exist.

Dosage: Systemic sulfonamides are contraindicated in infants under 2 months of age (except adjunctively with pyrimethamine in congenital toxoplasmosis).

Usual adult dosage: 2 Gm (4 tabs or teasp.) initially, then 1 Gm b.i.d. or t.i.d. depending on severity of infection.

Usual child's dosage: 0.5 Gm (1 tab or teasp.)/20 lbs of body weight initially, then 0.25 Gm/20 lbs b.i.d. Maximum dose should not exceed 75 mg/kg/24 hrs.

Supplied: Tablets, 0.5 Gm sulfamethoxazole; Suspension, 0.5 Gm sulfamethoxazole/teaspoonful.



Roche Laboratories
Division of Hoffmann-La Roche Inc.
Nutley, N.J. 07110

General LEASING

Doctor! This is Your Own Plan
ENDORSED BY THE

**Kentucky Medical
Association**

for the leasing of

*cars — all makes & models,
Medical, Surgical & Laboratory
Equipment
and Office Furnishings.*

**13 YEARS EXPERIENCE
IN THIS FIELD**

**General Leasing
CORPORATION**

121 Bauer Ave. St. Matthews

(502) 896-0383

NEW! Patient Therapy Packs

Because many patients tend to stop treatment prematurely, the full course of b.i.d. therapy is now specially packaged to encourage patients to complete the full course of therapy.

CANDEPTIN Vaginal Ointment Therapy Pack—two 75 gm. tubes

CANDEPTIN Vagalettes Therapy Pack—28 vaginal capsules

CANDEPTIN Vaginal Tablet Therapy Pack—28 vaginal tablets

Brief Summary

Description: CANDEPTIN (Candididin) Vaginal Ointment contains a dispersion of Candididin powder equivalent to 0.6 mg. per gm. or 0.06% Candididin activity in U.S.P. petrolatum. 3 mg. of Candididin is contained in 5 gm. of ointment or one applicatorful. CANDEPTIN Vaginal Tablets contain Candididin powder equivalent to 3 mg. (0.3%) Candididin activity dispersed in starch, lactose and magnesium stearate.

CANDEPTIN VAGELETTES Vaginal Capsules contain 3 mg. of Candididin activity dispersed in 5 gm. U.S.P. petrolatum.

Action: CANDEPTIN Vaginal Ointment, Vaginal Tablets, and VAGELETTES Vaginal Capsules possess anti-monilial activity.

Indications: Vaginitis due to *Candida albicans* and other *Candida* species.

Contraindications: Contraindicated for patients known to be sensitive to any of its components. During pregnancy manual Tablet or VAGELETTES Capsule insertion may be preferred since the use of the ointment applicator or tablet inserter may be contraindicated.

Caution: During treatment it is recommended that the patient refrain from sexual intercourse or the husband wear a condom to avoid re-infection.

Adverse Reaction: Clinical reports of sensitization or temporary irritation with CANDEPTIN Vaginal Ointment, Vaginal Tablets or VAGELETTES Vaginal Capsules have been extremely rare.

Dosage: One vaginal applicatorful of CANDEPTIN Ointment or one Vaginal Tablet or one VAGELETTES Vaginal Capsule is inserted high in the vagina twice a day, in the morning and at bedtime, for 14 days. Treatment may be repeated if symptoms persist or reappear.

Available Dosage Forms: CANDEPTIN Vaginal Ointment is supplied in a Patient Therapy Pack, containing two 75 gm. tubes with two applicators for the full course of treatment. CANDEPTIN Vaginal Tablets are packaged in boxes of 28, in foil with inserter—enough for a full course of treatment. CANDEPTIN Vagalettes Vaginal Capsules are packaged in a Patient Therapy Pack, containing 28 CANDEPTIN Vagalettes Vaginal Capsules (2 boxes of 14), for the full course of treatment. Store under refrigeration to insure full potency.

Federal law prohibits dispensing without prescription.

References:

1. Melges, F. J.: *Obstet. Gynecol.* 24:921, Dec. 1964.
2. Cameron, P. F.: *Practitioner* 202:695, May 1969.
3. Olsen, J. R.: *Journal-Lancet* 85:287, July 1965.
4. Giorlando, S. W.: *OB/GYN Digest* 13:32, Sept. 1971.
5. Decker, A.: Case Reports on file, Medical Department, Julius Schmid.
6. Friedel, H. J.: *Md. State Med. J.* 15:36, Feb. 1966.
7. Roberts, C. L. and Sullivan, J. J.: *Calif. Med.* 103:109, Aug. 1965.
8. Giorlando, S. W., Torres, J. F. and Muscillo, G.: *Am. J. Obstet. Gynecol.* 90:370, Oct. 1, 1964.
9. Abruzzi, W. A.: *Western Med.* 5:62, Feb. 1964.

Innovators in candididin therapy



Julius Schmid Pharmaceuticals
Little Falls, New Jersey 07424

Candeptin[®]

(candicidin)

The highly effective
monilia-cide with
high cure rates
proved clinically.¹⁻⁹

- *the only candicidin available in three dosage forms* for complete therapeutic flexibility—even for adolescent and gravid patients.
- *Symptomatic relief* in many patients as early as 48-72 hours¹⁻³; usually cures in a single 14-day course of therapy.
- *Exact dosage assured* when used as directed.
- *High patient acceptability*, easy to use in all forms; helps keep patients on the full 14-day regimen—important in controlling recurrences.
- *Clinically proved*—CANDEPTIN Vaginal Ointment and Vaginal Tablets have more than nine years of clinical experience.
- Sensitivity and temporary irritation with CANDEPTIN (candicidin) Vaginal Ointment, Vaginal Tablets, and VAGELETTES Vaginal Capsules have been extremely rare.

And a dosage form for all your patients



VAGELETTES[™]
Vaginal Capsules



Vaginal Ointment



Vaginal Tablets



EYES RIGHT!

...to SOUTHERN OPTICAL

LOUISVILLE Southern Optical Bldg. — 640 S. 4th
 Contact Lenses — 640 S. 4th
 Medical Towers Bldg., Floyd & Gray
 Doctors Office Bldg., Liberty at Floyd
 Medical Arts Bldg., 1169 Eastern Parkway
 Professional Bldg. East, 3101 Breckinridge Lane
 Medix Bldg. — Adj. S.S. Mary & Elizabeth Hosp.

ST. MATTHEWS 313 Wallace Center and 108 McArthur Drive

NEW ALBANY Professional Arts Bldg., 1919 State Street

BOWLING GREEN 524 East Main Street

OWENSBORO Doctors Bldg., 1001 Center Street



*Southern
Optical*

CHARGE ACCOUNTS
 INVITED
 BankAmericard
 Master Charge

Professional



Protection

CONTINUOUSLY

Since 1899

**THE
 MEDICAL PROTECTIVE COMPANY
 FORT WAYNE, INDIANA**

LOUISVILLE OFFICE: Riley Lassiter, Representative
 Suite 260
 Shelbyville Road Mall Office Center
 400 Sherburn Lane
 Telephone: (Area Code 502) 895-5501
 Mailing Address: P.O. Box 20065, Louisville, Kentucky 40220

Breast self-examination: KEY ROLE OF THE PHYSICIAN

item:	Breast cancer is a major concern of American women, according to a recent Gallup study conducted for the American Cancer Society.
item:	Although aware that early discovery improves the chances of cure, and that BSE can lead to early discovery, <i>fewer than 1 in 5 women practice BSE, and only half have an annual breast examination by a physician.</i>
item:	Only 35% of all women polled reported that a <i>physician</i> had ever raised the subject of breast self-examination, and only 24% had received instruction from the physician on how to do it. Even among women who regularly see a gynecologist, only 34% had been instructed on BSE.
item:	<i>But, among women who received personal instruction from their physicians, the overwhelming majority (92%) practiced BSE during the preceding year.</i>

The Gallup study revealed that, far more important than increasing awareness of breast self-examination, is the problem of inducing women to practice it regularly. The physician plays a key role in this—by teaching women the correct technique, and instilling in them the confidence that will assure their continued practice of BSE.

The American Cancer Society gives

major emphasis to breast cancer through research and a vast array of public educational materials, designed to give women life-saving information about the disease. Our latest approach is via a pioneering television film starring Jennifer O'Neill, "Breast Cancer: Where We Are." Where we *will* be in a few years will certainly hinge on our joint efforts.

American Cancer Society 



When a cough spoils your patient's day...

Triaminic® Expectorant

Each teaspoonful (5 ml.) contains:

Triaminic, 25 mg. (phenylpropanolamine hydrochloride, 12.5 mg.; pheniramine maleate, 6.25 mg.; pyrilamine maleate, 6.25 mg.); glyceryl guaiacolate, 100 mg.; alcohol, 5%.

Available in 8-oz. Family Size and 4-oz.

No Rx needed—recommend over the phone.

**The Adult Expectorant
that is great for kids, too.**

Dorsey Laboratories/Division of Sandoz-Wander, Inc./Lincoln, Nebraska 68501

BS-RD

prescribing, see complete prescribing information in SK&F literature or PDR. The following is a brief summary.

Indications: Edema associated with congestive heart failure, cirrhosis of the liver, the nephrotic syndrome; steroid-induced and idiopathic edema; edema resistant to other diuretic therapy. Mild to moderate hypertension.

Contraindications: Pre-existing elevated serum potassium. Hypersensitivity to either component. Continued use in progressive renal or cardiac dysfunction or developing hyperkalemia.

Warnings: Do not use dietary potassium supplements or potassium salts unless hypokalemia is present or dietary potassium intake is markedly reduced. Enteric-coated potassium salts may cause small bowel stenosis with or without obstruction. Hyperkalemia (> 5.4 mEq/L) has been reported in 4% of patients under 60 years, 10% of patients over 60 years, and in less than 1% of patients overall. Rarely, cases have been associated with cardiac irregularities. Accordingly, check serum potassium during therapy, particularly in patients with suspected or confirmed renal insufficiency (e.g., elderly or cirrhotics). If hyperkalemia develops, substitute Dyazide alone. If spironolactone is used concomitantly with 'Dyazide', check serum potassium frequently — both can cause potassium depletion and sometimes hyperkalemia. Two deaths have been reported in patients on such combined therapy (in one, recommended dose was exceeded; in the other, serum electrolytes were not properly monitored). Observe patients on 'Dyazide' regularly for possible blood dyscrasias, liver damage or other idiosyncratic reactions. Blood dyscrasias have been reported in patients receiving Dyrenium (triamterene, SK&F). Rarely, leukopenia, neutropenia, agranulocytosis, and aplastic anemia have been reported with the thiazides. Watch for signs of impending coma in acutely hyperkalemic patients. Thiazides are reported to cross the placental barrier and appear in breast milk. They may result in fetal or neonatal hyperbilirubinemia, thrombocytopenia, altered carbohydrate metabolism and possibly other adverse reactions that have occurred in the adult. When used during pregnancy or in women who might become pregnant, weigh potential benefits against possible hazards to fetus.

Precautions: Do periodic serum electrolyte and renal function determinations. Do periodic hematologic studies in cirrhotics with splenomegaly. Antihypertensive effects may be enhanced in post-thoractomy patients. The following may be enhanced: hyperuricemia and gout, reversible hyponatremia, decreasing alkali reserve, possible metabolic acidosis, hyperglycemia, glycosuria (diabetic insulin requirements may be altered), digitalis intoxication (in hyperkalemia). Use cautiously in surgical patients. Concomitant use with antihypertensive agents may result in an additive hypotensive effect.

Adverse Reactions: Muscle cramps, weakness, dizziness, headache, dry mouth; anaphylaxis; urticaria, photosensitivity, purpura, other dermatological conditions; nausea and vomiting (may indicate electrolyte imbalance), diarrhea, constipation, other gastrointestinal disturbances. Rarely, necrotizing vasculitis, paresthesias, icterus, pancreatitis, and xanthopsia have occurred with thiazides alone.

Usual Dosage: Bottles and Single Unit Packages of capsules.

SK&F CO.
Kenilworth, N.J. 07033
A subsidiary of SmithKline Corp.

WHEN YOUR DIGITALIZED PATIENT NEEDS A DIURETIC, SHE NEEDS DYAZIDE®



- relieves edema*
- conserves potassium
- reduces the risk of digitalis intoxication due to potassium depletion. Potassium depletion sensitizes the myocardium to the toxic effects of digitalis, and reduces its inotropic effect.

DYAZIDE®

Each capsule contains 50 mg. of Dyrenium® (brand of triamterene) and 25 mg. of hydrochlorothiazide.

MEETS THE HEARTFELT NEED OF THE DIGITALIZED PATIENT

It's time for action to defend the law and regulations that protect your patients against drug substitution.

**These professional and trade organizations are united
in supporting antisubstitution statutes and regulations**

The American Academy of Dermatology

The Board of Directors of the
American Academy of Family
Physicians

The Executive Board of the
American Academy of Neurology

The Committee on Drugs of the
American Academy of Pediatrics

The American College of Allergists

The Executive Committee of the
American College of Obstetricians
and Gynecologists

The Board of Regents of the
American College of Physicians

The Board of Trustees of the
American Dental Association

The Board of Trustees of the
American Medical Association

The American Psychiatric Association

The Executive Committee of the
National Association of Retail
Druggists

The Board of Directors of the
Pharmaceutical Manufacturers
Association

The National Wholesale Druggists'
Association



Statement on Antisubstitution Laws and Regulations

The purpose of this statement is to affirm the support of the participating organizations for the laws, regulations and professional traditions which prohibit the unauthorized substitution of generic products.

Traditionally, physicians, dentists and pharmacists have worked cooperatively to serve the best interests of patients. Productive cooperation has been achieved through mutual respect as well as a common concern for the ideals of public service. This mutual respect has been demonstrated, in part, by joint support over the years for the adoption and enactment of laws and regulations which prohibit unauthorized substitution and encourage joint decision and selection of the best source of supply of drug products. The basic principles of medical, dental and pharmacy practice are thus maintained and preserved in the interest of patient welfare.

The antisubstitution laws have obstructed enhancement of the professional status of pharmacy any more than they have in and of themselves guaranteed absolute protection from unsafe drugs, or freed physicians, dentists and pharmacists from their responsibilities to patients. As a practical matter, however, such laws and regulations encourage interprofessional communications regarding drug product selection and assure the profession the opportunity to use fully its expertise in drug selection to the advantage of patients.

Physicians and dentists should be urged to increase the frequency and regularity of their contacts with pharmacists in selection of quality drug products, recognizing that

economies to patients can be improved through such communication, taking into account the patients' needs. The pharmacist's knowledge of the chemical characteristics of drugs, their mode of action, toxic properties and other characteristics that assist in making drug selection decisions should be utilized to the fullest extent practicable by physicians and dentists in serving their patients.

Since drug product selection entails knowledge derived from clinical experience, the physician's and dentist's roles in product selection remain primary and do not permit delegation of decisions requiring medical and dental judgments. A broader role in therapy will evolve for pharmacists as improved understanding and cooperation among the professions continue to grow.

There has been no evidence that there are convincing reasons to modify or repeal existing laws and regulations prohibiting the unauthorized substitution of another drug product for the one specified by a prescriber. It is our belief that such laws and regulations merit the joint support of the medical, dental and pharmaceutical professions and the pharmaceutical industry.

Add your opinion to the weight of other professionals and send it to your state assemblyman or legislator.

*Pharmaceutical Manufacturers Association
1155 Fifteenth Street, N.W., Washington, D. C. 20005*





Placidyl® (ETHCHLORVYNOL)

Brief Summary

Indications—Placidyl (ethchlorvynol) is indicated as short-term hypnotic therapy in the management of insomnia.

Contraindications—Drug hypersensitivity and porphyria.

Warnings—Not recommended during the first and second trimester of pregnancy. Caution patients of possible combined exaggerated effects with alcohol, barbiturates, tranquilizers or other CNS depressants. Exaggerated effects might result in blurring of vision, paralysis of accommodation and profound hypnosis. Caution patients concerning driving a motor vehicle, operating machinery, or other hazardous operations requiring alertness after taking the drug. Administer with caution to patients with suicidal tendencies and do not prescribe large quantities of the drug. Adjustment of the dosage of oral anticoagulants might be necessary when beginning ethchlorvynol therapy, during therapy, or after stopping therapy. This drug is not recommended for use in children. PLACIDYL HAS THE POTENTIAL FOR THE DEVELOPMENT OF PSYCHOLOGICAL AND PHYSICAL DEPENDENCE. INSTANCES OF SEVERE WITHDRAWAL SYMPTOMS, INCLUDING CONVULSIONS AND DELIRIUM CLINICALLY SIMILAR TO THOSE SEEN WITH BARBITURATES, HAVE BEEN REPORTED IN PATIENTS TAKING REGULAR DOSES AS LOW AS 1000 MG. PER DAY OVER A PERIOD OF TIME WHEN THE DRUG WAS SUDDENLY DISCONTINUED. PROLONGED ADMINISTRATION OF THE DRUG IS NOT RECOMMENDED. Addiction-prone patients or those who are likely to increase dosages of the drug on their own initiative should be observed for evidence of signs or symptoms which may indicate possible early withdrawal or abstinence symptoms. Signs and symptoms associated with withdrawal and abstinence include unusual anxiety, tremor, ataxia, slurring of speech, memory loss, perceptual distortions, irritability, agitation and delirium. Other less well defined signs and symptoms, not necessarily due to withdrawal and abstinence, may include anorexia, nausea or vomiting, weakness, dizziness, sweating, muscle twitching and weight loss. Abrupt discontinuance of Placidyl following prolonged overdosage may result in convulsions and delirium.

Precautions—Toxic amblyopia has been reported with long-term continuous use of ethchlorvynol. Permanent visual defects have been observed, although amblyopia has improved after discontinuation of the drug. Drug dosage should be limited for elderly and debilitated patients to the smallest effective amount. If pain is present, this drug should only be given if insomnia persists after pain is controlled with analgesics. Caution is advised in prescribing the drug for patients who are being treated with either MAO inhibitors or antidepressants. Transient delirium has been reported with the combination of Placidyl and amitriptyline. Drug dosage should be reduced if prescribed for patients receiving MAO inhibitors or antidepressants. Caution should be exercised in patients with impaired hepatic or renal function. Patients who respond unpredictably to barbiturates or alcohol, or who exhibit excitement and release of inhibition in association with such agents, may also react in this way to Placidyl. Rarely, patients may exhibit symptoms suggestive of an unusual susceptibility to the drug; such as prolonged hypnosis, profound muscular weakness, excitement, hysteria, or syncope without marked hypotension. Transient giddiness or ataxia may occur.

Adverse Reactions—Hypotension, nausea or vomiting, gastric upset, aftertaste, blurring of vision, dizziness, facial numbness, and allergic reaction typified by urticaria have been reported following Placidyl administration. Mild "hangover" and symptoms of mild excitation have occurred in some patients. There have been rare reports of cholestatic jaundice occurring in patients taking ethchlorvynol. A few cases of thrombocytopenia have been reported in patients receiving ethchlorvynol. 302430R



Give us her nights.

Prescribe Placidyl. Chances are, we'll give her a good night's sleep.

Insomnia is often associated with emotional disturbance. Emotional problems might be the cause . . . or the effect. In time that can be determined. But tonight, one fact is painfully clear: she needs sleep.

When sleep is synonymous with therapy, remember . . . Placidyl is synonymous with sleep. It has been for over 17 years.

If time is the criterion to inspire your confidence... you can rest assured with Placidyl.

Prescribed by physicians for over 17 years.

Placidyl®
(ETHCHLORVYNOL CAPSULES, 500 or 750 mg.)

The Bactrim^{T.M.} edge

Each tablet contains 80 mg trimethoprim and 400 mg sulfamethoxazole.

high assurance of clinical efficacy

- in cystitis, pyelonephritis and pyelitis diagnosed as chronic
- against susceptible strains of the common urinary tract pathogens, usually *E. coli*, *Klebsiella-Enterobacter*, *Proteus mirabilis*, and, less frequently, indole-positive proteus species.



prescribing, please consult complete product information, a summary of which follows:

Indications: Chronic urinary tract infections (primarily pyelitis, pyelitis and cystitis) due to susceptible strains (usually *E. coli*, *Klebsiella-Enterobacter*, *S. mirabilis*, and, less frequently, indole-positive species).

The increasing frequency of resistant organisms and the usefulness of antibacterials, especially in chronic and recurrent urinary tract infections.

Contraindications: Hypersensitivity to trimethoprim or sulfonamides; pregnancy; nursing mothers.

Warnings: Deaths from hypersensitivity reactions, agranulocytosis, aplastic anemia and other blood dyscrasias have been associated with sulfonamides. Experience with trimethoprim is much more limited but bone marrow interference with hematopoiesis has been observed as well as an increased incidence of thrombocytopenia in elderly patients on diuretics, primarily furosemide. Sore throat, fever, pallor or jaundice may be signs of serious blood disorders. Frequent CBC's recommended; therapy should be discontinued if a significantly reduced count of any formed blood element is noted. Data are insufficient to recommend use in infants and children under 12.

Precautions: Use cautiously in patients with impaired renal or hepatic function, possible folate deficiency, chronic bronchial asthma; and in those with glucose-6-phosphate dehydrogenase deficiency, where hemolysis may occur. During therapy, maintain adequate fluid intake and perform frequent urinalyses, with microscopic examination, and renal function tests, particularly where there is impaired renal function.

Adverse Reactions: All major reactions to sulfonamides and trimethoprim are included, even if not associated with Bactrim. *Blood dyscrasias:* Agranulocytosis, aplastic anemia, megaloblastic anemia, thrombocytopenia, leukopenia, hemolytic anemia, purpura, disseminated intravascular coagulation, methemoglobinemia.

Skin reactions: Erythema multiforme, Stevens-Johnson syndrome, generalized skin eruptions, epidermal necrolysis, urticaria, serum sickness, pruritus,

exfoliative dermatitis, anaphylactoid reactions, peri-orbital edema, conjunctival and scleral injection, photosensitization, arthralgia and allergic myocarditis. *Gastrointestinal reactions:* Glossitis, stomatitis, nausea, vomiting, abdominal pains, hepatitis, diarrhea and pancreatitis. *CNS reactions:* Headache, peripheral neuritis, mental depression, convulsions, ataxia, hallucinations, tinnitus, vertigo, insomnia, apathy, fatigue, muscle weakness and nervousness. *Miscellaneous reactions:* Drug fever, chills, toxic nephrosis with oliguria and anuria, periarteritis nodosa and L.E. phenomenon. Due to certain chemical similarities to some goitrogens, diuretics (acetazolamide, thiazides) and oral hypoglycemic agents, sulfonamides have caused rare instances of goiter production, diuresis and hypoglycemia in patients; cross-sensitivity with these agents may exist. In rats, long-term therapy with sulfonamides has produced thyroid malignancies.

Dosage: Not recommended for children under 12.

Usual adult dosage: Two tablets b.i.d. for 10 to 14 days. For patients with renal impairment:

Creatinine Clearance (ml/min)	Recommended Dosage Regimen
Above 30	Usual standard regimen
15-30	2 tablets every 24 hours
Below 15	Use not recommended

Supplied: Tablets, each containing 80 mg trimethoprim and 400 mg sulfamethoxazole—bottles of 100 and 500; Tel-E-Dose[®] packages of 1000; Prescription Paks of 40, available singly and in trays of 10.



Roche Laboratories
Division of Hoffmann-La Roche Inc.
Nutley, New Jersey 07110

Bactrim^{T.M.}

Each tablet contains 80 mg trimethoprim and 400 mg sulfamethoxazole.



Each tablet contains 80 mg trimethoprim and 400 mg sulfamethoxazole.

A high assurance of antibacterial activity
in cystitis, pyelonephritis and pyelitis diagnosed
as chronic and due to susceptible organisms.

Before prescribing, please consult complete product information,
a summary of which appears on preceding page.



The Journal of The KENTUCKY Medical Association

Emergency Medical Care—The Physician's Responsibility

Jack K. Wickstrom, M.D.

269

Common Sexual Problems and Their Management

Robert C. Long, M.D.

273

Pedunculated Lymphangioma of the Cecum

David R. Hendrick, M.D., Leonidas Mostowycz, M.D. and
Martha D. Vazquez, M.D.

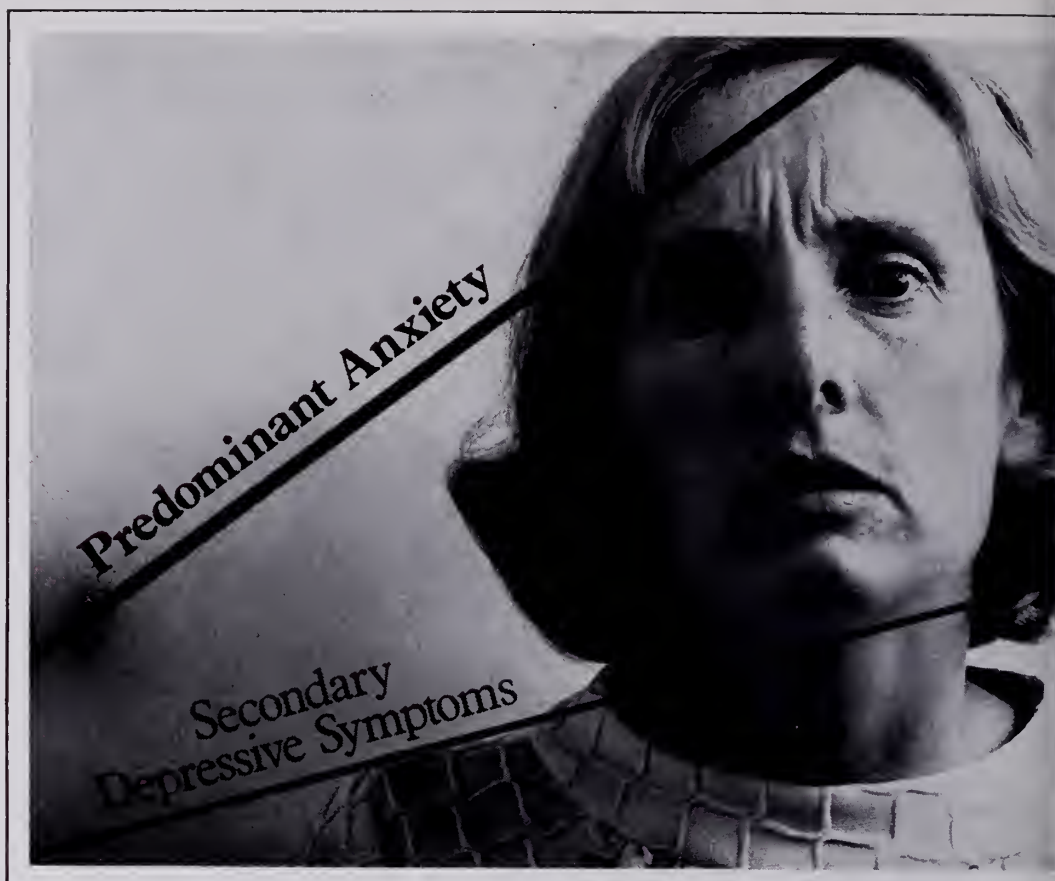
276

Health Services of the Ukraine

George F. Brockman, M.D.

283

Complete Contents on Page 253



This psychoneurotic often responds

Before prescribing, please consult complete product information, a summary of which follows:

Indications: Tension and anxiety states; somatic complaints which are concomitants of emotional factors; psychoneurotic states manifested by tension, anxiety, apprehension, fatigue, depressive symptoms or agitation; symptomatic relief of acute agitation, tremor, delirium tremens and hallucinosis due to acute alcohol withdrawal; adjunctively in skeletal muscle spasm due to reflex spasm to local pathology, spasticity caused by upper motor neuron disorders, athetosis, stiff-man syndrome, convulsive dis-

orders (not for sole therapy).

Contraindicated: Known hypersensitivity to the drug. Children under 6 months of age. Acute narrow angle glaucoma; may be used in patients with open angle glaucoma who are receiving appropriate therapy.

Warnings: Not of value in psychotic patients. Caution against hazardous occupations requiring complete mental alertness. When used adjunctively in convulsive disorders, possibility of increase in frequency and/or severity of grand mal seizures may require increased dosage of standard anticonvulsant

medication; abrupt withdrawal be associated with temporary increase in frequency and/or severity of seizures. Advise against simultaneous ingestion of alcohol and other CNS depressants. Withdrawal symptoms (similar to those with barbiturates and alcohol) have occurred following abrupt discontinuance (convulsions, tremor, dominal and muscle cramps, vomiting and sweating). Keep addicted individuals under careful surveillance because of their predisposition to habituation and dependence. pregnancy, lactation or women childbearing age, weigh potential benefit against possible hazard.

When you determine that the depressive symptoms are associated with or secondary to predominant anxiety in the psychoneurotic patient, consider Valium (diazepam) in addition to reassurance and counseling, for the psychotherapeutic support it provides. As anxiety is relieved, the depressive symptoms are also often relieved or reduced.

The beneficial effect of Valium is usually pronounced and rapid. Improvement generally becomes evident within a few days, although

some patients may require a longer period. Moreover, Valium (diazepam) is generally well tolerated. Side effects most commonly reported are drowsiness, ataxia and fatigue. Caution your patients against engaging in hazardous occupations or driving.

Frequently, the patient's symptoms are greatly intensified at bedtime. In such situations, Valium offers an additional advantage: adding an *h.s.* dose to the *b.i.d.* or *t.i.d.* schedule can relieve the anxiety and thus may encourage a more restful night's sleep.

Symptom complex

Valium[®] (diazepam)

Precautions: If combined with psychotropics or anticonvulsants, consider carefully pharmacologic agents employed; drugs such as phenothiazines, narcotics, barbiturates, MAO inhibitors and antidepressants may potentiate sedation. Usual precautions apply in patients severely depressed, or with latent depression, or suicidal tendencies. Observe usual precautions in impaired renal

or hepatic function. Limit dosage to smallest effective amount in elderly and debilitated to preclude ataxia or oversedation.

Side Effects: Drowsiness, confusion, diplopia, hypotension, changes in libido, nausea, fatigue, depression, dysarthria, jaundice, skin rash, ataxia, constipation, headache, incontinence, changes in salivation, slurred speech, tremor, vertigo, urinary retention, blurred

vision. Paradoxical reactions such as acute hyperexcited states, anxiety, hallucinations, increased muscle spasticity, insomnia, rage, sleep disturbances, stimulation have been reported; should these occur, discontinue drug. Isolated reports of neutropenia, jaundice; periodic blood counts and liver function tests advisable during long-term therapy.

Valium[®] 2-mg, 5-mg, 10-mg tablets
(diazepam)

The Rx that says "Relax"



BUTISOL Sodium provides highly predictable sedation: minor dosage adjustments are usually all that's needed to produce the desired degree of sedation. (With 3 dosages and 4 strengths to make adjustments easy.)

BUTISOL Sodium offers prompt, smooth, relatively cumulative action: begins to work within 30 minutes because of its intermediate rate of metabolism, generating neither a "roller-coaster" nor a "hangover" effect.

BUTISOL Sodium is remarkably well tolerated: a 30-year safety record assures you that there is little of unexpected reactions.

BUTISOL Sodium saves your patients money: costs less than half as much as most commonly prescribed sedative tranquilizers.*

These are four good reasons for prescribing BUTISOL Sodium for the many patients who need to have the just a little slower. Its gentle daytime sedative action is all that's needed to help the usually well-adjusted patient cope with temporary stress.

*Based on surveys of average daily prescription costs.

Butisol 
(SODIUM BUTABARBITAL)

Contraindications: Sensitivity or idiosyncrasy to barbiturates; history of manifest or latent porphyria or marked liver impairment; respiratory distress with dyspnea or obstruction; history of addiction to sedative/hypnotic drugs; history of uncontrolled pain, to avoid because of possible excitement.

Precautions: Exercise caution in: moderate to severe hepatic disease; anticoagulant therapy, because of possible increased metabolism of anticoagulants; withdrawal in drug dependence or the taking of excessive doses over a long period, to avoid withdrawal symptoms; elderly patients, to avoid possible marked excitement or depression; use with other CNS depressants, because of combined effects.

Adverse Reactions: Slight hangover, drowsiness, lethargy, headache, skin eruptions, nausea and vomiting, hypersensitivity reactions (especially with asthma, urticaria, angioneurotic edema, or similar conditions).

Usual Adult Dosage: For daytime sedation, 15 mg. to 30 mg. t.i.d. For hypnosis, 50 mg. to 100 mg.

Available as: Tablets, 15 mg., 30 mg., 50 mg., 100 mg.; Elixir, 30 mg. (alcohol 7%). BUTICAPS® [Capsules BUTISOL SODIUM (sodium butabarbital)] 15 mg., 30 mg., 50 mg., 100 mg.

McNEIL

McNeil Laboratories, Inc., Fort Washington, Pa. 19034

© McNeil 1971

EDITOR

Walter I. Hume, Jr., M.D.

ASSOCIATE EDITOR

Henry B. Asman, M.D.

ASSISTANT EDITOR

A. Evan Overstreet, M.D.

EXECUTIVE EDITOR

Robert G. Cax

MANAGING EDITOR

Jerry E. Mahaney

ASSISTANT MANAGING EDITOR

Diane Maxey

DEPARTMENTAL EDITORS

Charles C. Smith, Jr., M.D., Scientific

John W. Greene, Jr., M.D., Maternal
Mortality

BOARD OF CONSULTANTS
ON SCIENTIFIC ARTICLES

Term Expires July 1, 1976

Gehrig M. Robinson, M.D.

Mark S. Sexter, M.D.

Thomas E. Baath, M.D.

Patrick L. Jospser, M.D.

Oscar W. Thompson, M.D.

Stephen C. Schindler, M.D.

Van R. Jenkins, M.D.

John W. Miller, M.D.

Term Expires July 1, 1975

Robert E. Arnold, M.D.

Robert A. Holl, M.D.

Chrismon S. Jackson, Jr., M.D.

Lafayette G. Owen, M.D.

Anne Richmon, M.D.

Rue! T. Routt, M.D.

Frank G. Simon, M.D.

Leslie Von Nastrand, M.D.

Term Expires July 1, 1974

David S. Nightingale, M.D.

Dennis B. Penn, M.D.

Andrievs J. Dzenitis, M.D.

Joseph G. Whelon, Jr., M.D.

Conrod H. Jones, M.D.

Peter C. Compbell, Jr., M.D.

William E. Jackson, M.D.

Edgor W. Waltrip, M.D.

Published at 3532 Ephraim McDowell Drive,
Louisville, Ky. 40205

Phone (Area Code 502) 452-6324

Subscription \$10 (Members \$5)

Single Copy \$1

Second-class postage paid at Louisville, Kentucky.
Acceptance for mailing at special rates postage
provided in Section 1103, act of Oct. 3, 1917,
authorized May 25, 1920.

Journal of The KENTUCKY Medical Association

Contents

SCIENTIFIC ARTICLES

Emergency Medical Care—The Physician's Responsibility

Jack K. Wickstrom, M.D.269

Common Sexual Problems and Their Management

Robert C. Long, M.D.273

Pedunculated Lymphangioma of the Cecum

David R. Hendrick, M.D., Leonidas Mostowycz,
M.D. and Martha D. Vazquez, M.D.276

Intraperitoneal Infection and Emergency Operation in Patients on Long-Term Corticosteroid Therapy (Grand Rounds)

Timothy Oldfather, M.D., William Bizot, M.D.,
David Kinnaird, M.D., and Hiram C. Polk,
Jr., M.D.280

SPECIAL ARTICLE

Health Services of the Ukraine

George F. Brockman, M.D.283

EDITORIAL

Reflection on Colonoscopy

Carl O. Knutson, M.D.286

ORGANIZATION

Guest Speakers to Provide Outstanding Scientific Program at 1974

KMA Annual Meeting, September 24-26288

KMA Public Relations Committee Seeks Physician Volunteers289

AMA Lists 107 Kentucky Recipients For Physician's Recognition

Award289

Emergency Care Seminar Gets More CME Approval296

Regional Workshops Being Held on New X-Ray Standards287

Five Trustee Districts Hold Annual Meeting for 1974257

REGULAR FEATURES

President's Page255 Woman's Auxiliary262

KFMC Page256 Postgraduate Opportunities290

Maternal Mortality258 Blue Shield Page295

KENTUCKY MEDICAL ASSOCIATION

BOARD OF TRUSTEES—1973-1974

Officers

President	FRED C. RAINEY 912 Woodland Dr., Elizabethtown 42701 (502) 765-4147 .1974
President-Elect	HOYT D. GARDNER 508 Watterson City Bldg., Louisville 40218 (502) 452-2684 .1974
Immediate Past President	LEE C. HESS 7211 U. S. 42, Florence 41042 (606) 371-1153 .....1974
Vice-President	GABE A. PAYNE 1610 S. Main St., Hopkinsville 42240 (502) 885-8445 ....1974
Secretary	S. RANDOLPH SCHEEN 1163 Medical Arts Bldg., Louisville 40217 (502) 451-1661 .1975
Treasurer	KEITH P. SMITH Medical Arts Bldg., Corbin 40701 (606) 528-3211 .....1975
Speaker, House of Delegates ...	RICHARD F. GREATHOUSE 5 Triangle Center, Louisville 40220 (502) 458-3219 .....1974
Vice-Speaker	CARL COOPER, JR. Bedford 40006 (502) 255-3282 .....1974
Chairman, Board of Trustees ...	BALLARD W. CASSADY Pikeville Medical Bldg., Pikeville 41501 (606) 437-6698 ..1974
Vice-Chairman	PAUL J. PARKS 1109 State St., Bowling Green 42101 (502) 781-5111 ....1974

Delegates to the A.M.A.

J. THOS. GIANNINI, Suite 3E, Suburban Medical Plaza, Louisville (502) 897-2555	Jan. 1973-Dec. 1974
CHAS. G. BRYANT, (Alt.) 3357 Medical Arts Bldg., Louisville (502) 452-1558	Jan. 1973-Dec. 1974
JOHN C. QUERTERMOUS, 205 S. 8th St., Murray (502) 753-5161	Jan. 1974-Dec. 1975
WILLIAM W. HALL, (Alt.) Mayfair Square, Owensboro (502) 684-6255 ...	Jan. 1974-Dec. 1975
DAVID B. STEVENS, 333 Waller Ave., Lexington (606) 254-8008	Jan. 1974-Dec. 1975
THOMAS L. HEAVERN, (Alt.) 2435 Alexandria, Highland Hgts. (606) 441-7600	Jan. 1974-Dec. 1975

Trustees

1st	W. EUGENE SLOAN, 2320 Broadway, Paducah 42001 (502) 443-4581 .....1974
2nd	CHARLES C. KISSINGER, Atkinson Park, Henderson 42420 (502) 826-6271 .....1976
3rd	RALPH L. CASH, 210 West Main St., Princeton 42445 (502) 365-2037 .....1974
4th	W. BRUCE HAMILTON, 4th & Buckman, Shepherdsville 40165 (502) 543-6362 ...1974
5th	EDWARD N. MAXWELL, St. Joseph Infirmary, Louisville 40217 (502) 636-7461 ..1975
6th	PAUL J. PARKS, 1109 State St., Bowling Green 42101 (502) 781-5111 .....1975
7th	JOHN P. STEWART, 220 Steele St., Frankfort 40601 (502) 227-4718 .....1976
8th	CARL J. BRUEGGEMANN, 325 W. 19th St., Covington 41014 (606) 291-4768 ..1975
9th	JAMES L. FERRELL, Bourbon Medical Ctr., Paris 40361 (606) 987-2200 .....1976
10th	DAVID A. HULL, 2368 Nicholasville Rd., Lexington 40503 (606) 277-5711 ....1976
11th	R. EUGENE BOWLING, 527 W. Main, Richmond 40475 (606) 623-3754 .....1975
12th	ROBERT N. McLEOD, JR., 500 Bourne Ave., Somerset 42501 (606) 678-8155 ....1974
13th	J. WESLEY JOHNSON, 2301 Lexington Ave., Ashland 41101 (606) 325-1151 ....1976
14th	BALLARD W. CASSADY, Pikeville Med. Bldg., Pikeville 41501 (606) 437-6698 ..1974
15th	HAROLD L. BUSHEY, 406 Knox St., Box 770, Barbourville 40906 (606) 546-3024 1975

BUYERS GUIDE

MAY BUYERS GUIDE FOR JOURNAL OF KMA 1974

Abbott Laboratories	291	Medical Protective Company	282
Burroughs Wellcome Company	263	Pharmaceutical Manufacturers Association	266-267
Flint Laboratories	294	Physician's Office	257
General Leasing Corporation	260	A. H. Robins Company	303-304
HealthCare of Louisville	290	Rache Laboratories ..250-251, 264-265, 298-299, 300-301, 305-306	
Hospital Corporation of America	259	Julius Schmid Pharmaceuticals	260-261
Eli Lilly and Company	268	Searle Laboratories	292-293
Marian Laboratories, Inc.	296-297	Skyway Enterprises	302
McNeil Laboratories, Inc.	252	Southern Optical Company	302

MESSAGE FROM THE PRESIDENT



"Federal Intervention—Where Will It Stop— Or Will It?"

ORGANIZED medicine has been on the battle front for a long time, and quite frankly, the future appears more bleak to me than ever before. Politicians continue to ridicule the high cost of medical care, and then they vote for more and more federally-sponsored health programs; **every one** of them **increasing** the cost of medical care, not decreasing it. Medicare has far exceeded the original cost estimated by the federal government, and co-insurance premiums have approximately doubled in that short time. Such efforts are being made to decrease expenditures that services for those who need care the most are being cut. Medicaid has so many inequities and unreasonable administrative considerations to deserve a forthcoming article all its own. Along came neighborhood health centers, OEO centers, and so forth, all costing the taxpayer an amount more than double what the same service would cost provided by a private physician on a fee-for-service basis. And bear in mind, these are HEW statistics—**not** ours! According to some estimates, even the pre-paid capitation plans are costing approximately double that of private physicians. Catastrophic coverage is needed and cannot survive as a free-standing insurance program because of the nature of such illnesses. If the federal government really wishes to help the American people, why not subsidize a catastrophic illness program, help those who **need** help, and allow free enterprise to do the rest?

It would seem no one ever learns a lesson—now we have PSRO, more HMO's skimming off the low-risk patients, a national health insurance proposal by virtually every organization and Presidential hopeful, and **all** of them will add to the cost of medical care—not a single one in my opinion will **decrease** costs—and at the same time, freedom of the individual and the free enterprise system are being constantly eroded and chipped away.

I am very much concerned that in the immediate future, we may have a system of medical care which no one will want—but by then, perhaps it will be too late. I seriously question whether the American people **really** understand and fully appreciate the system of care we presently have; and I further believe that if they understood the shortcomings and higher cost of federally-sponsored health programs, that the vast majority would oppose the trend we see today. Physicians have traditionally fought their own battle only to be accused of being prejudiced and biased. Maybe we are, but I surely wish we could somehow cause the public to become interested in all the facts. I am confident the vast majority would express preference for our present system with few changes; then, and perhaps only then, would we be able to "win the war."

FRED C. RAINEY, M.D.



FOUNDATION PAGE



KENTUCKY FOUNDATION FOR MEDICAL CARE

KPRO

Kentucky Professional Review Organization

At its meeting on April 11, 1974, the KMA Board of Trustees voted to establish a free-standing statewide peer review organization to be known as the Kentucky Peer Review Organization. This action resulted from an explanation of how KPRO would be organized and operated to meet all requirements of Professional Standards Review Organization's legislation as well as all commercial and "private" review needs, on the profession's terms. The Board also voted to make application to the federal government for a planning grant for the proposed review efforts.

Rationale

The Rationale for creating a formal peer review organization hinges on four points:

- (1) That KMA and subsidiary components have achieved affirmative peer review experience in operating a statewide medical care evaluation mechanism.
- (2) That social, geographical, economical, demographic, and traditional considerations indicated that a review mechanism can operate effectively when conducted in a regionalized form (KMA Trustee Districts) but administered centrally.
- (3) That the review mechanism thus described should be opened to all doctors of medicine and osteopathy in the state and otherwise meet the requirements of PSRO as stipulated in Public Law 92-603.
- (4) That the review mechanism should be "free-standing" and make professional services available to any party which contracts for such services.

KPRO constitutes a more detailed version of the initial implementation proposal de-

veloped by the Kentucky Foundation for Medical Care and is an extension of that plan. The establishment of KPRO is proposed because the Kentucky Foundation for Medical Care does not meet all PSRO requirements, notably that it is not open for membership to all physicians and osteopaths with no restrictions. In addition, the KPRO concept would fulfill the moral responsibility, indicated by opposition to PSRO, to perform professional peer review rather than PSRO. It would satisfy all PSRO requirements but would allow more control by the profession of review activities than would be possible with PSRO. The government would be encouraged to contract with KPRO to perform PSRO functions but PSRO would be done only on the same terms that would apply to all other contracted review. This proposal is suggested as a compromise between the need to accomplish formalized, statewide review and the objectionable or questionable portions of PSRO.

KPRO Organization

KPRO will be organized in much the same manner as stated in the original KFMC implementation proposal. The incorporators of the organization will be members of the KMA Board of Trustees who would serve until an initial KPRO Board of Directors was elected. The Board of Directors of the corporation will be composed of members elected from each of the existing KMA Trustee Districts, one non-KMA physician, an osteopath and four other non-members.

This Board would have the authority to employ administrative staff and appoint various physician committees to oversee aspects of the program. The utilization review committee of

each hospital would be the focal point for review operations and would perform all primary peer review. It would also nominate and monitor the activities of physician advisors in each hospital and the physician advisors would, in turn, supervise local program coordinators.

KPRO Operations and Functions

A system of concurrent, in-house review would be applied to patients eligible for KPRO peer review activities. KPRO review would be applicable to beneficiaries of those programs who have contracted with KPRO, to include but not be limited to, those eligible under PSRO. All patients in such contracted programs will be reviewed by KPRO.

KPRO would rely on seven basic operational principles:

1. All elements of health care must participate—especially physicians.
2. The actual review of medical services must be conducted by physicians.
3. The system would utilize “on-site, concurrent” review.
4. Local program coordinators would be used to collect data but would not participate in the rendering of medical services and would make no medical judgments.
5. Physician advisors would supervise the activities of the local coordinators and

provide on-the-spot review decisions and would be selected by the KPRO and the individual hospital staffs. The advisors would be reimbursed by KPRO for their services.

6. The review of patient care, covered by participating third parties, would be all inclusive.
7. All decisions of this peer review process would be final as far as participating third parties are concerned. The program would include an appeal mechanism and no retroactive denial of payment by participating third parties would be permitted.

Conclusion

With the impending establishment of national health insurance and other political-social movements, medical organizations must create involvement in depth if they are to remain or become viable forces in future years. Proven patient care modes, the independence of medical practice, and the guaranteed professional supervision of health programs can be maintained only through active participation by individual physicians and by groups of physicians. KPRO is intended to prove the profession's commitment to self-supervised medical care appraisal on the profession's own terms and would not sacrifice independent judgment to bureaucratic administration.

Five Trustee Districts Hold Annual Meeting for 1974

Four Trustee Districts have recently held annual meetings. The First District, meeting in Paducah on April 24, heard David A. Hull, M.D., Lexington, President of the Kentucky Foundation for Medical Care, speak on the status of PSRO, according to District Trustee, W. Eugene Sloan, M.D., Paducah.

The Second District met on April 25 in Henderson and the featured speaker was KMA President, Fred C. Rainey, M.D., Elizabethtown, according to Charles C. Kissinger, M.D., Henderson, Trustee.

Meeting in Lexington on May 2, the Ninth District heard Jamie Jacobs, M.D., Lexington, according to James L. Ferrell, M.D., Trustee. The Seventh District met on May 8 in Frankfort and featured presentations by Doctor Rainey and KMA President-Elect, Hoyt D. Gardner, M.D., Louisville, according to John P. Stewart, M.D., Frankfort, District Trustee.

Scheduled to meet on May 23 is the Fourteenth

Trustee District. A scientific program is being planned for the meeting to be held at the Green Meadow Country Club in Pikeville, according to Trustee, Ballard W. Cassady, M.D., Pikeville.

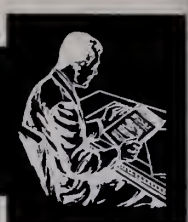
PRIME LOCATION — MODERN PHYSICIAN'S OFFICE

Skyway Bldg.—Hikes Ln. & Bardstown Rd.
Opposite two new giant shopping centers
Ideal for 1 M.D., can be enlarged for 2.
Ground floor—plenty “At the Door”
parking.

**AVAILABLE NOW—
PHONE (502) 458-4303**



MATERNAL MORTALITY



From the Files of the KMA Maternal Mortality Study Committee

—Edited by John W. Greene, Jr., M.D.

Case 11-71: This 19-year-old, married white, gravida I, para 0 was under the care of a private physician. Her LMP was 11/27/70 thus her EDD was 9/3/71. She was seen initially on 2/1/71. She weighed 136 lbs and had normal physical findings on examination. She was seen regularly, having seven additional prenatal visits, the last on 9/2/71. Her total weight gain was 18 lbs. She was Rh negative, blood pressure was normal, and the urinalysis was negative.

Labor began spontaneously at 4:30 a.m., 9/13/71. She was admitted to the hospital at 7:30 a.m., having contractions every five to seven minutes lasting 45-60 seconds, described as fairly hard. Her temperature was 98, BP 136/90, blood count 13.8 Hgb; fetal heart tones were good, 140/minute. Rectal examination was performed and the cervix was thought to be completely dilated; the station described as low. She received 50 mg Demerol, 25 mg Phenergan IM at 7:50 a.m. and her physician was notified. She had some bloody show at 9 a.m., rectal examination revealed the presenting part lower, the cervix completely dilated.

At 9:50 a.m. complete dilation of the cervix was confirmed. She stated she had the desire to push with the contractions. At 11:30 a.m. some perineal pressure was noted. She received 50 mg Demerol, 25 mg Phenergan IM. At 1:10 p.m. the contractions were occurring every two to three minutes lasting 45-60 seconds.

Her BP was 140/80 at 5 p.m., when she complained of backache with the contractions. Dilation of the cervix was noted to be 7 cm. She received 50 mg Demerol, 25 mg Phenergan after which she was able to doze between contractions.

At 10 a.m. on 9/14/71, she was sent to x-ray for pelvimetry. The pelvis was reported adequate in all diameters and there was no molding of the fetal skull. The occiput was transverse, engaged in the pelvis. She received Trilene with her contractions, the dilation remained 7 cm, the FHTs were good in the RLQ and the membranes were bulging.

She received 50 mg of Demerol, 25 mg Phenergan at midnight after which she began having irregular contractions. The patient slept between contractions. At 6:40 a.m. on the 15th she had only a rim of cervix remaining, temperature was 99, BP 150/78, FHT good volume and regular. Her physician examined her at 9:45 a.m. and ordered Pitocin 0.1 cc sub q and IV fluids were started. Her membranes

were ruptured and she was encouraged to push with contractions. She was moved to the delivery room at 10:30 a.m. and received "whiffs of chloroform with oxygen." She received 0.1 cc Pitocin deep sub q at 11 a.m. She was delivered of an 8 lb. 11½ oz. male at 11:37 a.m. as an occiput posterior by forceps with RML episiotomy. The infant's color initially was poor; oxygen was administered by mask and he improved. Cord blood was obtained and sent to the lab. The placenta was expressed intact. She sustained what was described as 1.0 degrees lacerations. She received Ergotrate IV. At 1:20 p.m. her BP was 130/90, the fundus was firm and the lochia normal. Another 1000 cc D-5-W was given. She voided spontaneously.

Her temperature was normal on the 16th. Her episiotomy was tender and swollen; she received medication and a heat light for this. She had no problem until a shaking chill and nausea around 11:50 a.m. on the 17th. Temperature was 100.2, pulse 152, R 28, BP 120/80. She complained of a headache. An attempt was made to notify her physician, however his phone was out of order. Bicillin 2 cc stat was ordered, then Lincocin 2 cc IM, then 500 mg orally q 6 hrs. A midstream urinalysis was ordered. It revealed 4+ alb, 2+ bacteria, 2030 WBC, and loaded with RBC, no sugar or acetone. Blood pressure was 118/70, pulse was rapid at 140. On the 18th her temperature was 100.8 and the pulse 152. She complained of a headache.

She was still febrile on the 19th, 100.6, pulse 100 and still complained of headache in addition to pain in the right groin that radiated to her back. Her temperature was 101.8, pulse 120. She was given Darvon compound 65 mg.

On the 20th her temperature was normal, Hgb. 11.9, WBC 29,000, 9 stab, 80 seg, 8 lymphs. She still complained of headache. She refused her breakfast, was nauseated and around 8:45 a.m. vomited approximately 480 cc brown liquid and had incoherent speech, pulse was 88, respirations 20, blood pressure 120/78. She continued to complain of a headache. Hematuria was noted when the patient involuntarily voided. Her pulse was 150, blood pressure at 1:15 p.m. 160/?. Her eyes rotated to her left side. Her physician examined her at 1:45 p.m., and had her transferred to a medical center.

On arrival in the emergency room she was comatose, unresponsive to all but deep pain stimuli. Her skin was clear without evidence of ecchymosis, her

neck was supple. The chest was clear. Examination of the heart revealed the rate regular at 104, no murmurs. Blood pressure was 150/90.

The abdomen was obese and soft. The uterus was palpable, but no other masses were felt. Pelvic examination revealed a foul smelling lochia and a broken down episiotomy.

Neurologic examination revealed sharp disc margins without hemorrhages or exudates. The eyes were deviated to the left with very poor doll's head response. The ciliospinal reflex was present bilaterally. Pupils were small and not reactive to light. There was some spontaneous vertical nystagmus. Corneal reflexes were depressed bilaterally. Gag reflex was depressed but present. The tongue was midline. The neck was deviated to the left and there were more spontaneous movements of the left side than of the right. Deep tendon reflexes were slightly hyperactive on the right side and normal on the left. A right-sided Babinski was present. There was no Hoffmann's sign. Abdominal reflexes were absent. The patient responded by withdrawal to deep pain stimuli, but there was no response to pinprick.

The patient was taken from the emergency room to the x-ray department where bilateral carotid angiograms were done. These revealed marked spasm of all the intracerebral vessels with thrombosis of the venous sinuses and cerebral veins. A lumbar puncture done immediately after the angiography showed clear fluid with an opening pressure of 380, closing pressure of 207. The fluid was slightly xanthochromic with 15 red cells, 57 white cells of which 90% were polys. Cerebrospinal fluid protein was 60 and glucose was 100.

Other pertinent laboratory data obtained over the next several hours showed a sodium of 125, potassium 3.8, carbon dioxide, 16, and chloride of 87. Platelets were 61,500, BUN 94, white count 16,500 with a marked left shift, hemoglobin of 12.3, hematocrit of 35.9%. Prothrombin time was 15.8 with a control of 11.3 seconds.

The patient had a nasotracheal tube inserted and was placed on a respirator with room air after blood gases revealed a pH of 7.44, PO_2 of 66, PCO_2 of 20. Shortly after admission the patient began to show evidence of further bleeding tendencies with epistaxis around the nasotracheal tube and bleeding from sites of vena punctures. She was seen in consultation by the renal group, and by another consultant for the coagulopathy. A sternal bone marrow aspiration done shortly after midnight was consistent with diagnosis of thrombocytopenic, thrombohemolytic purpura. Peripheral blood smear also substantiated this diagnosis. Shortly after midnight the patient resumed seizing and was treated with IV Dilantin and Valium. Her condition continued to deteriorate over the next two hours with no evidence of any urine output, with progressive signs of central nervous system deterioration, and with progressive cutaneous and mucous membrane bleeding. The patient became hypotensive and had a cardiorespiratory arrest at 2 a.m. on 9/21/71. Resuscitative measures were conducted and the patient was pronounced dead at

2:10 a.m. on 9/21/71. Permission for autopsy was obtained.

Final Diagnosis

1. Progressive disseminated intravascular coagulation, i.e. with thrombohemolytic, thrombocytopenic purpura.
2. Cortical vein thrombosis and dural sinus thrombosis.
3. Acute renal failure.

Comments

The Maternal Mortality Committee classified this death as a direct obstetrical, preventable one. It is felt that she was allowed to be in labor far too long. The history as given is not quite accurate. In one place she is described as completely dilated, then later on said to be only 7 cms. This patient should have been treated far more vigorously as to her care during labor. She should have received active treatment of an inert labor and delivery effected much earlier than was done. The dehydration which she had would certainly predispose her to thrombosis which did occur in this situation. It is felt that she might also have had a septic pelvic vein thrombosis that caused her fever and deterioration. This is indeed an unfortunate situation.

Ecology Booklet Available

A new booklet describing various adverse effects that the pollution of the environment has on human beings and their health is available free from the Office of Public Affairs, Dept. MED, U.S. Environmental Protection Agency, Washington, D.C. 20460. The booklet is entitled "Health Effects of Environmental Pollution."

PHYSICIANS

Private practice (solo, partnerships, groups) opportunities exist in several communities within the state of Kentucky (Morganfield, Mayfield, Bowling Green, and Frankfort). As a public service to these communities, we are performing a free, no obligation, service acting as a liaison between physicians interested in practice opportunities and communities in need of their services. These communities have modern, JCAH approved hospitals, modern offices, and recognized needs for additional physicians.

For details call collect 615-327-9551 or write with C.V. to:

*E. J. Ryan, Jr., Corporate Director,
Medical Relations
Hospital Corporation of America
One Park Plaza
Nashville, Tennessee 37203*

General LEASING

Doctor! This is Your Own Plan
ENDORSED BY THE

**Kentucky Medical
Association**

for the leasing of

*cars — all makes & models,
Medical, Surgical & Laboratory
Equipment
and Office Furnishings.*

**13 YEARS EXPERIENCE
IN THIS FIELD**

**General Leasing
CORPORATION**

121 Bauer Ave. St. Matthews

(502) 896-0383

NEW! Patient Therapy Packs

Because many patients tend to stop treatment prematurely, the full course of b.i.d. therapy is now specially packaged to encourage patients to complete the full course of therapy.

CANDEPTIN Vaginal Ointment Therapy Pack—two 75 gm. tubes

CANDEPTIN Vagalettes Therapy Pack—28 vaginal capsules

CANDEPTIN Vaginal Tablet Therapy Pack—28 vaginal tablets

Brief Summary

Description: CANDEPTIN (Candididin) Vaginal Ointment contains a dispersion of Candididin powder equivalent to 0.6 mg. per gm. or 0.06% Candididin activity in U.S.P. petrolatum. 3 mg. of Candididin is contained in 5 gm. of ointment or one applicatorful. CANDEPTIN Vaginal Tablets contain Candididin powder equivalent to 3 mg. (0.3%) Candididin activity dispersed in starch, lactose and magnesium stearate.

CANDEPTIN VAGELETTES Vaginal Capsules contain 3 mg. of Candididin activity dispersed in 5 gm. U.S.P. petrolatum.

Action: CANDEPTIN Vaginal Ointment, Vaginal Tablets, and VAGELETTES Vaginal Capsules possess anti-moniil activity.

Indications: Vaginitis due to *Candida albicans* and other *Candida* species.

Contraindications: Contraindicated for patients known to be sensitive to any of its components. During pregnancy manual Tablet or VAGELETTES Capsule insertion may be preferred since the use of the ointment applicator or tablet inserter may be contraindicated.

Caution: During treatment it is recommended that the patient refrain from sexual intercourse or the husband wear a condom to avoid re-infection.

Adverse Reaction: Clinical reports of sensitization or temporary irritation with CANDEPTIN Vaginal Ointment, Vaginal Tablets or VAGELETTES Vaginal Capsules have been extremely rare.

Dosage: One vaginal applicatorful of CANDEPTIN Ointment or one Vaginal Tablet or one VAGELETTES Vaginal Capsule is inserted high in the vagina twice a day, in the morning and at bedtime, for 14 days. Treatment may be repeated if symptoms persist or reappear.

Available Dosage Forms: CANDEPTIN Vaginal Ointment is supplied in a Patient Therapy Pack, containing two 75 gm. tubes with two applicators for the full course of treatment. CANDEPTIN Vaginal Tablets are packaged in boxes of 28, in foil with inserter—enough for a full course of treatment. CANDEPTIN Vagalettes Vaginal Capsules are packaged in a Patient Therapy Pack, containing 28 CANDEPTIN Vagalettes Vaginal Capsules (2 boxes of 14), for the full course of treatment. Store under refrigeration to insure full potency.

Federal law prohibits dispensing without prescription.

References:

1. Melges, F. J.: *Obstet. Gynecol.* 24:921, Dec. 1964.
2. Cameron, P. F.: *Practitioner* 202:695, May 1969.
3. Olsen, J. R.: *Journal-Lancet* 85: 287, July 1965.
4. Giorlando, S. W.: *OB/GYN Digest* 13:32, Sept. 1971.
5. Decker, A.: Case Reports on file, Medical Department, Julius Schmid.
6. Friedel, H. J.: *Md. State Med. J.* 15:36, Feb. 1966.
7. Roberts, C. L. and Sullivan, J. J.: *Calif. Med.* 103:109, Aug. 1965.
8. Giorlando, S. W., Torres, J. F. and Muscillo, G.: *Am. J. Obstet. Gynecol.* 90:370, Oct. 1, 1964.
9. Abruzzi, W. A.: *Western Med.* 5:62, Feb. 1964.

Innovators in candididin therapy

 **SCHMID**
LABORATORIES, INC.
LITTLE FALLS NEW JERSEY 07424

Candeptin[®]

(candicidin)

The highly effective
monilia-cide with
high cure rates
proved clinically.¹⁻⁹

- *the only candicidin available in three dosage forms* for complete therapeutic flexibility—even for adolescent and gravid patients.
- *Symptomatic relief* in many patients as early as 48-72 hours¹⁻³; usually cures in a single 14-day course of therapy.
- *Exact dosage assured* when used as directed.
- *High patient acceptability*, easy to use in all forms; helps keep patients on the full 14-day regimen—important in controlling recurrences.
- *Clinically proved*—CANDEPTIN Vaginal Ointment and Vaginal Tablets have more than nine years of clinical experience.
- Sensitivity and temporary irritation with CANDEPTIN (candicidin) Vaginal Ointment, Vaginal Tablets, and VAGELETTES Vaginal Capsules have been extremely rare.

And a dosage form for all your patients



VAGELETTES[™]
Vaginal Capsules



Vaginal Ointment



Vaginal Tablets

A Link in the Chain

Focus on the Abused Child

“At least 700 children are killed every year in this country by their parents or surrogates. Child abuse, a symptom of violence running rampant in our communities, results in social disorganization and disintegration. This generation’s battered children, if they survive, will be the next generation’s battering parents.” These are the words of Vincent Fontana, M.D., Director of Pediatrics, St. Vincent’s Hospital and Medical Center of New York, as he addressed the 1973 Convention of the AMA Woman’s Auxiliary.

This year the Woman’s Auxiliary to the KMA has emphasized the problem of Child Abuse and Neglect. Our goals have been to educate our members about the problem, then to inform the community, and then to undertake action programs in relation to assessed needs. At every level we have tried to coordinate and integrate our work with that of other professional, governmental, and lay organizations.

Mrs. William J. Oldham of Owensboro, who has a Master’s Degree in Social Work, has served as the Chairman of our State Committee on Mental Health, and she has directed and coordinated our efforts in the area of Child Abuse. Early in the year, she prepared an educational kit for auxiliary members and conducted a workshop at our Fall Board Meeting. She has also represented the Auxiliary on the Kentucky Child Protective Services Committee, which functions as an organized forum to deal with child abuse and neglect. She continues to serve on this committee, specifically to help develop educational materials for statewide distribution. These materials are to be designed so that the lay people of the Commonwealth can be at least basically familiar with the problem and be aware of the laws as they have to do with reporting suspected cases of child abuse.

Activities at the county level have varied depending on the size of the auxiliary and the assessed need in the community. Programs have been both educational and preventive in nature. Local auxiliaries have sponsored and/or co-sponsored educational TV films and forums, newspaper articles, and TV and radio spot announcements to inform the public of help and services available. One auxiliary is working toward incorporating information about child abuse into the curriculum used at the prenatal clinic. Auxilians in another county have made informative talks to high school students, guidance counselors, church groups, and girls clubs. Another auxiliary is cooperating with other organizations in their community to raise funds for a badly needed shelter home where abused and neglected children can be cared for. And our largest county auxiliary co-sponsored a statewide Child Abuse Seminar, and is presently participating on a committee to plan lay volunteer programs.

We have but laid a good foundation. Our efforts will have to continue and to increase if we are to help prevent and ameliorate this complex problem. But no single group or organization can do the job alone. To further quote Doctor Fontana, “Community and personal involvement by all people will bring us closer to eradicating this social disease.”

MRS. WILLIAM PEARSON, PRESIDENT
WOMAN’S AUXILIARY TO THE KMA

Integument!

Our skin—the human integument—covers us, defines us, protects us. But skin is subject to cuts, burns, abrasions. And infections. Neosporin Ointment fights infection by providing broad antibacterial action against susceptible skin invaders. It contains antibiotics that are rarely used systemically, reducing the risk of sensitization.

INDICATIONS: Therapeutically, used as an adjunct to appropriate systemic therapy for topical infections, primary or secondary, due to susceptible organisms, as in:

- infected burns, skin grafts, surgical incisions, otitis externa
- primary pyodermas (impetigo, ecthyma, sycosis vulgaris, paronychia)
- secondarily infected dermatoses (eczema, herpes, and seborrheic dermatitis)
- traumatic lesions, inflamed or suppurating as a result of bacterial infection.

Prophylactically, the ointment may be used to prevent bacterial contamination in burns, skin grafts, incisions, and other clean lesions. For abrasions, minor cuts and wounds accidentally incurred, its use may prevent the development of infection and permit wound healing.

CONTRAINDICATIONS: Not for use in the external ear canal if the eardrum is perforated. This product is contraindicated in those individuals who have shown hypersensitivity to any of the components.

PRECAUTION: As with other antibiotic preparations, prolonged use may result in overgrowth of nonsusceptible organisms and/or fungi. Appropriate measures should be taken if this occurs. Articles in the current medical literature indicate an increase in the prevalence of persons allergic to neomycin. The possibility of such a reaction should be borne in mind.

Complete literature available on request from Professional Services Dept. PML.

NEOSPORIN[®] Ointment

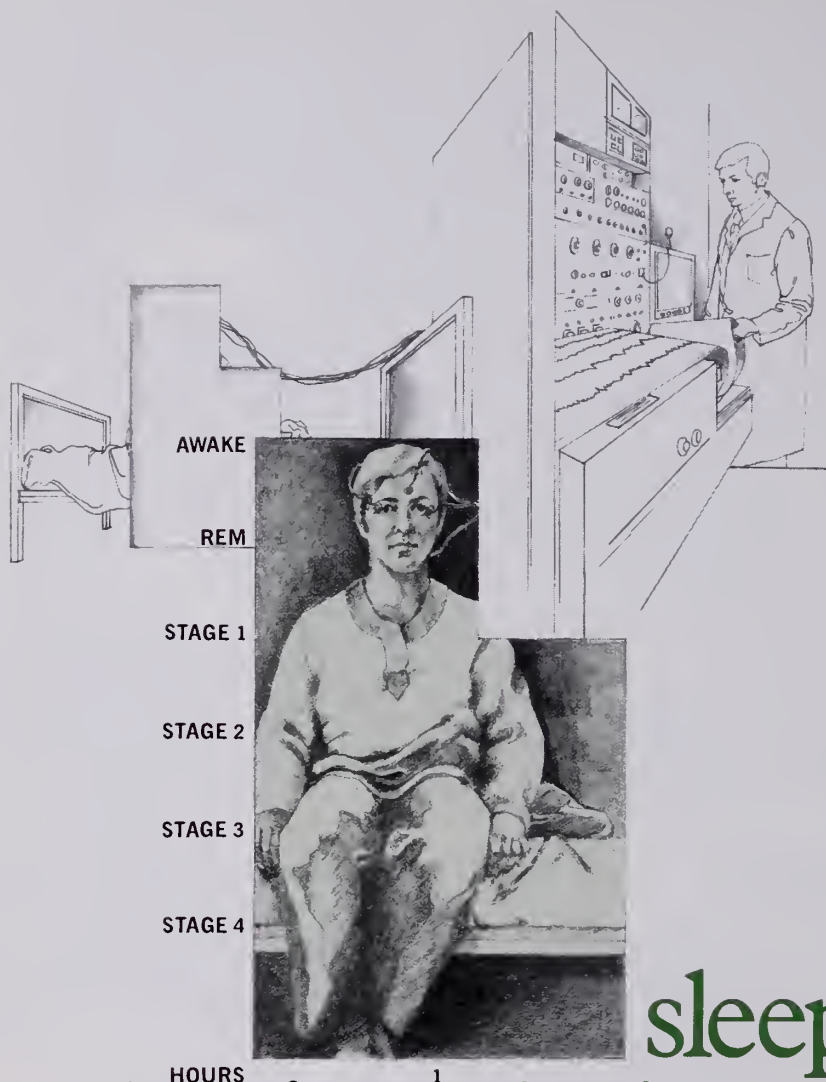
(POLYMYXIN B-BACITRACIN-NEOMYCIN)

Each gram contains: Aerosporin[®] brand Polymyxin B Sulfate 5,000 units; zinc bacitracin 400 units; neomycin sulfate 5 mg. (equivalent to 3.5 mg. neomycin base); special white petrolatum q.s. In tubes of 1 oz. and ½ oz. and ¼ oz. (approx.) foil packets.



Wellcome

Burroughs Wellcome Co.
Research Triangle Park
North Carolina 27709

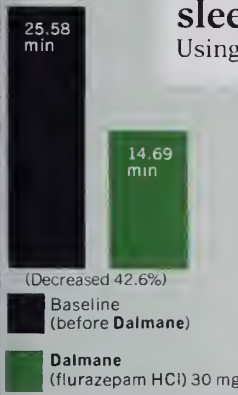


sleep
begins within
17 minutes, on average ...
an initial benefit of

Dalmane[®]
(flurazepam HCl) **proved by a**
22-night clinical study of insomnia patients
in the sleep research laboratory and at home¹

Three insomnia patients selected for difficulty falling asleep were administered Dalmane (flurazepam HCl) 30 mg for 14 consecutive nights. Placebo was given for four nights prior to and four nights after Dalmane. Physiologic tracings on Dalmane nights 1-3 showed sleep induction time averaged 13.90 minutes; on Dalmane nights 12-14, 18.80 minutes. Combined average for the 6 monitored drug nights was 16.35 minutes.¹

Time Required
to Fall Asleep (4 Studies,
Subjects²⁻⁵)



confirmed by clinical studies in four geographically separated sleep research laboratories²⁻⁵

Using a 14-night protocol involving eight insomniac and eight normal subjects, four studies confirmed the sleep-inducing effectiveness of Dalmane (flurazepam HCl) and the reproducibility of this response. On average, one 30-mg capsule induced sleep within 17 minutes. In all these studies, Dalmane induced sleep rapidly, reduced nighttime awakenings, and provided 7 to 8 hours of sleep without repeating dosage²⁻⁵

Dalmane (flurazepam HCl) induces and maintains sleep, with relative safety

Dalmane is generally well tolerated; morning "hang-over" has been relatively infrequent. While dizziness, drowsiness, lightheadedness and the like have been reported most often, particularly in the elderly and debilitated, physicians should be aware of the possibility of more serious reactions, as noted below.

When prescribing Dalmane (flurazepam HCl), please consult Complete Product Information, a summary of which follows:

Indications: Effective in all types of insomnia characterized by difficulty in falling asleep, excessive nocturnal awakenings and/or early morning awakening; in patients with recurring insomnia or poor sleeping habits; and in acute or chronic medical situations requiring restful sleep. Since insomnia is often transient and intermittent, prolonged administration is generally unnecessary or recommended.

Contraindications: Known hypersensitivity to flurazepam HCl.

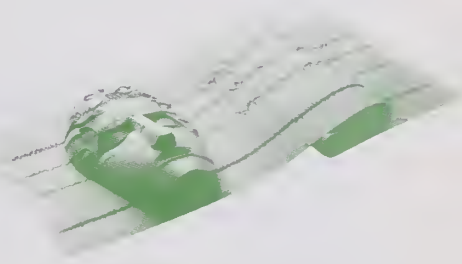
Warnings: Caution patients about possible combined effects with alcohol and other CNS depressants. Caution against hazardous occupations requiring complete mental alertness (operating machinery, driving). Use in women who are or may become pregnant only when potential benefits have been weighed against possible hazards. Not recommended for use in children under 15 years of age. Though physical and psychological dependence have not been reported on recommended doses, use caution in administering to alcohol-prone individuals or those who might increase dosage.

Precautions: In elderly and debilitated, initial dosage should be 15 mg to preclude oversedation, dizziness and/or ataxia. Caution when combined with other drugs having hypnotic or CNS-depressant effects. Consider potential additive effects. Employ usual precautions in patients who are severely depressed, or with latent depression or suicidal tendencies. Periodic blood counts and liver and kidney function tests are advised during repeated therapy. Observe usual precautions in presence of impaired renal or hepatic function.

Adverse Reactions: Dizziness, drowsiness, lightheadedness, ataxia, and falling have occurred, particularly in elderly debilitated patients. Severe sedation, lethargy, disorientation and probably indicative of drug intolerance or overdosage, have been reported. Also reported were headache, heartburn, upset stomach, nausea, vomiting, diarrhea, constipation, GI pain, nervousness, irritability, apprehension, irritability, weakness, palpitations, muscle aches, body and joint pains and GU complaints. There have been rare occurrences of sweating, flushes, difficulty in focusing, blurred vision, burning eyes, faintness, hypotension, shortness of breath, pruritus, skin rash, dry mouth, bitter taste, excessive salivation, anorexia, euphoria, depression, slurred speech, confusion, hallucinations, and elevated SGOT, SGPT, total and conjugated bilirubins and alkaline phosphatase. Paradoxical reactions, such as excitement, stimulation and hyperactivity, have also been reported in rare instances.

Dosage: Individualize for maximum beneficial effect. *Adults:* 30 mg capsule; 15 mg may suffice in some patients. *Elderly or debilitated patients:* 15 mg initially until response is determined.

Formulation: Capsules containing 15 mg or 30 mg flurazepam HCl.



when restful sleep is indicated

Dalmane[®] (flurazepam HCl)

One 30-mg capsule h.s. — usual adult dosage (15 mg may suffice in some patients).

One 15-mg capsule h.s. — initial dosage for elderly or debilitated patients.

- induces sleep within 17 minutes, on average
- reduces nighttime awakenings
- sustains sleep 7 to 8 hours, on average, without repeating dosage

REFERENCES: 1. Kales A, et al: *Arch Gen Psychiatry* 23:226-232, Sep 1970
2. Kales A, Williams RL, Smith JR: The sleep laboratory in the investigation of sleep and sleep disturbances. Scientific exhibit at the 124th annual meeting of the American Psychiatric Association, Washington DC, May 3-7, 1971

3. Smith JR: Data on file, Medical Department, Hoffmann-La Roche Inc, Nutley NJ

4. Smith JR: Data on file, Medical Department, Hoffmann-La Roche Inc, Nutley NJ

5. Smith JR: Data on file, Medical Department, Hoffmann-La Roche Inc, Nutley NJ



ROCHE LABORATORIES
Division of Hoffmann-La Roche Inc.
Nutley, New Jersey 07110

Is there a need for a drug compendium?

A drug compendium of the type I envision would fill a definite need for the practicing physician. It would give him the information necessary for a drug intelligently, and it would do so in a clear, concise, convenient, objective and balanced fashion.

What a Compendium Should Contain

I believe the compendium should inform the doctor what a drug will do, when he should use it, for what type of patient, for how long, in what dose, what the risks involved, and cross-referenced with other drugs.

The information would be based on the package insert and have the same legal status. A complete compendium would be a complete and current information source that might even eliminate the need for a separate reference work.

A drug compendium, preferably a compendium, should be private, not federal sponsorship. They should contain comprehensive listings of drugs available for prescribing. They should be single, legible print volumes of reasonable size, dated quarterly or semiannually, and completely revised every year.

Function of a Compendium

A compendium should furnish the following information: drugs in the following order: indications for use, side effects, drug reactions, contraindications, drug interactions, drug dosages, dosage forms, market prices. Prices should not be included because they vary so widely and change rapidly.

No compendium should furnish drugs of choice or relative efficacy. Such questions must be left for the physician to decide, whether on the basis of the medical literature, his own clinical experience, or the advice of his colleagues, information supplied by manufacturers, and so on.

Nor should a compendium undertake to educate the physician on how to use drugs. Rather, it should be a reference source designed primarily to refresh his memory and to inform him of drugs he may not use regularly.

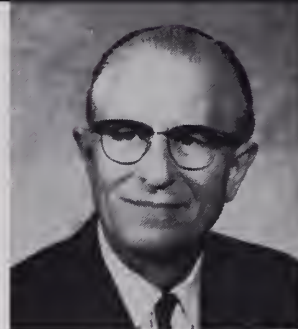
Government Health Official

Henry E. Simmons, M.D.
Deputy Assistant
Secretary for Health
Department of Health,
Education and Welfare



Maker of Medicine

Joseph F. Sadusk, Jr., M.D.
Warner-Lambert Company



Opinion & Dialogue

package insert in many instances. This would constitute a substantial saving for the manufacturer.

By a complete compendium, I do not mean a volume of prohibitive size. You don't need a book describing 25,000 products with a enormous amount of repetition. Rather, drugs should be arranged in a sensible class. Mutually applicable information would be provided, along with brief discussions pinpointing differences in specific drugs of each class. Listings would be cross-referenced in a useful way.

Available Documents as Sources of Information

Existing references such as the AMA Drug Evaluation are obviously useful but they are incomplete. Either they are not cross-referenced by generic name or do not group drugs with similar characteristics, or they do not list all the available and legally marketed drugs. And some of the omitted may be very useful.

It would in no way imply control over the practitioner's prerogatives.

Another Compendium?

A practicable, single-volume compendium cannot, nor is it necessary to, include all drugs on the market today. From my practical experience of internal medicine for some years, my experience as a consultant, and as a faculty member at four or five medical schools, I can estimate that a doctor uses 30 to 35 drugs regularly. The AMA's "Physicians' Desk Reference," currently, contained about 10,000 entries.

As to whether there should be a federal compendium, in my opinion, as stated earlier, the answer is no—there should *not* be one. The AMA assumes that existing compendia are inadequate. We're sure of that at all. Whatever its imperfections, the present drug information system in the U.S. is a multifaceted, pluralistic and expensive. Good compendia exist, as well as other ample sources on drug therapy, ranging from journal literature through AMA Drug Evaluation to company materials. Not all physicians may use such sources as often or as well as they should, but that is the fault of the user, not of the sources.

In any event, rather than pro-

duce another book, it makes much more sense to work on improving existing compendia, and perhaps they could, as knowledge advances, include more accumulated clinical data and experience, and more information on drug interactions and adverse reactions.

While perhaps PDR could be rearranged and cross-indexed with generics included, and while the AMA Drug Evaluation might also be modified and expanded, I am not sure that the end result would have all the attributes required for a useful compendium. At the same time, you would run the risk of amassing a voluminous and unwieldy tome.

Should Editorial Comments Accompany the Listings?

Subjective judgments, in my opinion, have no place in a compendium. However, if there is substantial evidence based on a sound body of science concerning relative efficacy of several drugs, certainly that information should be included. The committee of experts compiling and editing a particular section would also have to assess

and indicate instances where a meaningful difference between drugs is pertinent.

Sponsorship, Compilation and Editing

Producing a book like this would undoubtedly be difficult and demanding. It would obviously take a great deal of talent and expertise, and would require a varied and experienced group, ranging from writers and editors to highly skilled clinicians and pharmacologists. Style, format and clarity of language would play an important part in determining the usefulness of the book. And it should be updated periodically and completely revised annually.

I have no opinion whether the government or the private sector should sponsor and/or finance the compendium. What is most important is that the compendium be an authoritative, objective and useful source of information for the doctor to have at hand as a ready reference.

duce another book, it makes much more sense to work on improving existing compendia, and perhaps they could, as knowledge advances, include more accumulated clinical data and experience, and more information on drug interactions and adverse reactions.

Implications of a Federal Compendium

Take a hard look at the implications of a federal compendium. It would have the force of law, virtually dictating what drugs to use and how to use them. In effect, it would be a regulatory document with legal or quasi-legal status, posing medical/legal problems similar to those the doctor may now encounter if and when he departs from the provisions of the package insert. A compendium under federal aegis would tend to restrict decisions on drug therapy to one orthodox level—a most dangerous trend for medicine.

New Compendium—A Medical Option

I detect no ground swell of initiative or support whatsoever for a federal compendium—or, for that matter, for a new compendium of any type. A 1969 PMA survey conducted by Opinion Research Corporation found that only 15 per

cent of those physicians interviewed felt a new compendium was needed. And a large majority did not favor the involvement of the federal government if one were to be created, preferring instead a nongovernmental consortium.

Even if we come to a time when the medical profession itself opts for a new kind of compendium, it should be handled and financed, ideally, outside both government and industry. Final review and editorial authority could be delegated, say, to specialty bodies and medical societies—but above all, *not* the government.

Surely the health care system in the United States has far more vital matters to consider than the extensive cost and effort that would have to go into the preparation and maintenance of a new, monolithic compendium, and especially one bearing the imprimatur of the federal government.

Opinion & Dialogue

What is your opinion, doctor? We would welcome your comments.

The Pharmaceutical
Manufacturers Association
1155 Fifteenth Street, N.W.
Washington, D.C. 20005



new

DARVOCETIN[®]

50 mg. propoxyphene napsylate
and 325 mg. acetaminophen

Lilly
TABLETS

Additional information available to the profession on request.
Eli Lilly and Company, Indianapolis, Indiana 46206

300104

The JOURNAL *of the* Kentucky Medical Association

ISSUED MONTHLY UNDER THE DIRECTION OF THE BOARD OF TRUSTEES

VOLUME 72

MAY 1974

No. 5

Emergency Medical Care—The Physician's Responsibility†

JACK K. WICKSTROM, M.D.*

New Orleans, Louisiana

THOSE phases of medicine which deal with the primary care of the seriously ill and injured is one of the weakest links in the delivery of health care in this country.^{2, 12} The National Academy of Science, in March of 1972, reported that a study of ambulance equipment available in this country revealed that 20,000 of the 25,000 ambulances were inadequate in type of vehicle, space, and equipment.¹⁸ The Department of Transportation, in another survey, estimated that over 50% of the nation's ambulances do not have equipment specified as minimal standard by the American College of Surgeons Committee on Trauma. A recent HEW survey revealed that 5% of the nation's ambulance attendants had no training in first aid and that 64% of the attendants had only completed the equivalent of an advanced first aid course, and that only 5% of all ambulance attendants "measured up" to the more stringent requirements sought by the federal government.

The control and dispatching of ambulances in most communities is haphazard and ill-planned.¹⁵ The HEW survey found that once an ambulance had arrived at the scene and the patients were on their way to the hospital, 40% received no emergency care en route to the hospital and were unsupervised during the trip. Less than 7% of the nation's ambulances were

found to have adequate communication which would allow contact with a hospital and permit physicians in the hospital to prepare for the patient or to monitor the patient's vital signs.⁶

To compound the deficiencies, it has been found that half the nation's hospitals do not have basic necessities which would make them capable of offering adequate emergency care. An American Hospital Association survey showed that only 17% of the hospitals with emergency departments are staffed by a doctor on duty 24 hours a day.^{2, 9} This is in spite of the sound recommendations made by the American College of Surgeons that emergency departments make available a physician to see patients within 15 minutes of their admission and that emergency departments be kept open and staffed 24 hours per day.

If such deficiencies exist within the framework of modern American medical care, whose responsibility is it to correct these deficiencies, and by what means can they be corrected?

It appears to us that the primary responsibility of patient care rests with the physicians within a community, whether it be urban or rural, large or small. It would appear that if the physicians neglect this duty of providing supervision for primary care in manning emergency facilities, there are a number of government agencies which are anxious to fill this void by assigning physicians to primary care facilities or make available someone to perform the physician's duties for him.

It is obvious that there are insufficient phy-

†Presented at the 1973 KMA Annual Meeting, September 18, Louisville

*Professor and Chairman, Division of Orthopaedic Surgery, Tulane University School of Medicine, New Orleans

sicians to afford on-the-scene care for all accident victims or those with serious acute illnesses. In order to fill the gap between the supply and need for service, the individuals with special skills needed to render adequate on-the-scene emergency medical care and competent transportation and monitoring of such patients to properly equipped and manned in-hospital emergency facilities, must be recruited. It appears to us that it is the physician's responsibility not only to recruit, but also to assist in the training of Emergency Medical Technicians who are capable of substituting for the physician, rendering adequate care by the most exacting and modern standards.^{3, 4} It is also the medical sector's responsibility to alert the community as to the need for financial support of the emergency care facilities and equipment.⁸ Certain urban communities such as Seattle, Houston, Los Angeles, Miami, and Jacksonville have initiated such programs with phenomenal success.

Is there specific evidence of the value of improved emergency medical care and transportation of the seriously ill and injured?

It is estimated that in Jacksonville deaths per 1,000 accident victims have dropped by 38% since the Fire Department Controlled Emergency Medical Services were upgraded.¹⁴ If we need more concrete evidence of the value of immediate care of the seriously ill and injured, one need refer only to the excellent record of the Military Medical Services in Vietnam, which should demonstrate to every physician the effectiveness of emergency care being furnished by properly trained and adequately equipped paramedical personnel. Julian Waller, M.D., Professor of Community Medicine at the University of Vermont, has correctly pointed out that the most important reason for the high survival rate of wounded Americans in Vietnam is not the speed of helicopter evacuation to field hospitals, but the improvement of care provided by medical corpsmen before the patients are evacuated.¹⁴

Fry, in a study of autopsies of patients in his county in Michigan, believes that 18% of highway crash victims could have been saved had the emergency personnel been able to carry out endotracheal intubation and intravenous fluid therapy.¹⁴

Another example of the effectiveness of im-

proved emergency care has been demonstrated in Heidelberg, where they have installed hospital-based emergency units manned by surgeons 24 hours a day and equipped with intubation and respiration equipment, intravenous fluids, surgical instruments, ECG and defibrillators, anesthetics, as well as other routine emergency splints and stretchers.¹⁴ These units were capable of responding to an emergency call within 85 seconds, and were able to be on the scene of the accident in an average of slightly over nine minutes from an average distance of 4.7 miles. There were 106 life or death situations among the first 1,000 injured patients treated. Of these, 36 were successfully resuscitated and delivered to the emergency units of the hospitals, and would otherwise have died if it were not for the specialized surgical care at the scene.

It is easy to imagine that larger urban communities would have facilities which would allow furnishing first-rate emergency medical care at the scene of accidents or medical emergencies and adequate transportation to properly equipped hospital facilities, but what of the rural areas? In England, its feasibility has been demonstrated in one community, North Riding of Yorkshire.¹⁴ Thirty general practitioners created their own cooperative emergency service, which placed a physician at the scene of most of the accidents within the community to work with trained personnel capable of extrication of accident victims, and excellent cardiopulmonary resuscitation in a program known as Road Accident After Care. Within the first three months of 1968, the R.A.A.C. had attended 351 accidents in which 182 severely injured patients had been treated, plus 310 with less critical injuries. There were 23 deaths at the scene of the accident and four deaths at the hospital, but, more importantly, there were no deaths during transit. In the year before, 2,000 out of 100,000 seriously injured people on British roads died en route to the hospitals.

If the medical profession recognizes the fact, and certainly they must, that prevention of injury and prevention of death following acute illness or injury, is as much a responsibility of the medical profession as prevention of contagious diseases by proper immunization and other public health matters, then physicians must attack the problem two ways. First, they

must make the local, state and federal government cognizant of the necessity for better emergency medical care. Second, they must assist in training the proper personnel, with adequate equipment, to render such services and transportation at, and from, the scene of the accident or acute medical emergency.

Theoretically, federal funds will be available for improved emergency medical care once the executive and legislative branches of the government quit squabbling, and the Department of Transportation now has the power to cut off highway funds to states that do not comply with various highway safety standards, including furnishing adequate emergency medical services. So far, the Department of Transportation has never used this power. William Hadden, Jr., M.D., first Medical Director of the National Highway Safety Bureau, points out that without an adequate constituency, the programs will gradually deteriorate and disappear. Doctor Hadden states that most of the people involved do not regard highway safety as a medical issue, which is a good part of the problem.¹³ Fry, of Michigan, concluded that the reason for lack of proper first-rate emergency services in this country is that the rendering of such services has never been the official responsibility of any group or public agency.

How does one go about taking the first step in correcting the deficiencies in our emergency medical services? If this is a responsibility of the medical profession, how can physicians help solve this problem? First, by selling the community the needs and actively participating in the recruitment of financial support for upgrading of equipment, training of personnel, and coordination of efforts within each community. Secondly, by actively participating and supervising a program that will train Emergency Medical Technicians at all community levels. Some states have made remarkable progress in establishing such programs. Wisconsin is one which has made possible the training of many Emergency Medical Technicians on a state-wide program that is controlled and directed by organized medicine, and by practitioners within the state. It should serve as a model for all states to follow.¹³ Many other states have similar programs designed to train emergency care personnel, as well as improve ambulances, their equipment, radio communication,

and the quality and level of emergency care delivered.

Before establishing such a training program for Emergency Medical Technicians, it is necessary for the physician to establish liaison with some governmental agency, community voluntary emergency service, organization or privately owned ambulance service to secure cooperation in organizing a training program. Next, the requirements of the Department of Transportation's Eighty Hour Instruction Program for training Emergency Medical Personnel must be followed in order to insure the capability of the emergency personnel to obtain proper certification. Financial support from the community, either from tax dollars, voluntary contributions, or from appropriate legislation which would make support for upgrading the equipment and training of personnel on private ambulance service feasible, is mandatory. Last, but not least, the medical profession must secure properly designed and staffed emergency facilities in our hospitals.¹¹

Organization of instructional material must take into consideration that lectures in themselves are inadequate, and if a picture takes the place of 1,000 words, one demonstration takes the place of thousands of hours of talk. It is also essential that the students take an active part in the demonstrations and actually experience handling of equipment and supplies used in the care of the acutely ill or injured, as well as assist in their care. This exposure should be facilitated by the use of simulated injuries to acquaint the students with the sometimes startling appearance of the severely injured, as well as through slide presentations available from a number of sources.

Instruction and clinical experience must be gained in cardiopulmonary resuscitation. The use and application of back boards, both short and long, in extrication of patients, as well as routine management of the unconscious patient, the patient with thoracic abdominal injuries or fractures, as well as those with injuries to the more limited systems, must be included in the program.^{3, 4}

It is essential that present paramedical personnel be trained in intravenous therapy and the injection of medication, as well as in electrocardiography, and cardioversion equipment so that they can apply these techniques under

the direction of a physician monitoring their work by telemetry and radio.^{7, 10} The physicians conducting such courses for emergency medical personnel must also avail themselves of the services of specialists in extrication who can teach and demonstrate the use of the various power tools that are needed for freeing patients trapped in crushed motor vehicles or in collapsed buildings.⁶

It is not only necessary that the personnel be instructed through lectures, demonstrations and practice sessions in the various aspects of emergency medical care, together with the use of equipment needed for the extrication and transportation of patients, as outlined above, but evaluation of the efficacy of such instruction must be determined by appropriate testing through examinations and demonstrations by the students during the course and at its end. Those who successfully master the art of emergency medical procedures should be given recognition of these skills through proper certification, and without such certification, no one should be able to be employed as an Emergency Medical Technician.

It is needless to point out that personnel trained in the use of modern equipment are incapable of rendering the proper type of medical services if the equipment available in the community does not afford the necessary tools to apply the skills acquired through this education program. It is also necessary to include in such a program periodic inspection of equipment and repeated determination of the personnel's familiarity in using such equipment.

Are such activities worthwhile and effective? We have cited statistics above which indicate that some factors have begun to reduce the death rate from accidental injury since 1966 when the federally sponsored campaign to improve emergency medical care was instituted.⁹ We believe this reduction is the direct result of improved care. Those of us who have worked long in this field in the training of axillary medical personnel can assure you that teaching efforts in few fields yield as high a degree of return and satisfaction as working with the type of person one encounters in emergency medical personnel. The demonstration by the physician that he has personal involvement and interest in the problems of the Emergency Medical Technician, and that he

recognizes the responsibility, fosters a sense of appreciation by the students and a feeling of "comradery." Such satisfaction is garnered from many sources, one being the letters one receives from practicing colleagues in the community, expressing their appreciation of your efforts in training such personnel who have demonstrated the skills acquired by rendering aid to patients and delivering them to the physician in a community hospital with proper emergency care having been applied.

These letters from physicians are gratifying, but not half so much as the penciled note on lined paper written by some technician that says:

"Dear Doc:

*I was "rolling on" a cardiac the other day when he quit breathing and I couldn't feel no pulse. I got the heels of both hands on his chest and started CPR (closed heart massage) and the driver stopped and helped me put on the bag to pump air in him. Lucky for us and him, he started to breathe and his pulse came back. I thought: Wouldn't Doc be proud of me if he could see me now? Your friend"*_____

Indeed, I am proud of such a friend, and all the others who have gone out from training programs to apply their skills, thus extending this physician's hand in caring for those who need immediate care during some acute illness or injury.

References

1. National Safety Council. *Accident Facts*. p. 96, 1971.
2. Committee on Trauma and Committee on Shock, Division of Medical Sciences. *Accidental Death and Disability: The Neglected Disease of Modern Society*. Washington, D.C.: National Academy of Sciences—National Research Council, p. 36, 1966.
3. Committee on Emergency Medical Services, Division of Medical Sciences. *Training of Ambulance Personnel and Others Responsible for Emergency Care of the Sick and Injured at the Scene and During Transport*. Washington, D.C.: National Academy of Sciences—National Research Council, p. 23, March, 1968.
4. Committee on Emergency Medical Services, and the Subcommittee on Ambulance Services, Division of Medical Sciences. *Advanced Training Program for Emergency Medical Technicians—Ambulance*. Washington, D.C.: National Academy of Sciences—National Research Council, p. 9, September, 1970.
5. Committee on Emergency Medical Services, Division of Medical Sciences. *Medical Requirements for Ambulance Design and Equipment*, September 1968. Washington, D.C.: National Academy of Sciences—National Research Council, p. 23, 1968.

(References Continued on Page 297)

Common Sexual Problems and Their Management†

ROBERT C. LONG, M.D.*

Louisville, Kentucky

THE terms "sexual problems, sexual inadequacy, and sexual dysfunction" are synonymous. The feelings that we have about our own sexuality and our sexual behavior often give rise to sexual dysfunction, and there is general agreement that sexual problems, especially those of responsiveness, occur commonly among both men and women. What is not appreciated is the fact that sexual problems, while often disguised, are among the most common causes for consulting a physician. The high frequency of sexual problems in medical practice is confirmed by numerous authors, including a study by Burnap and Golden indicating that of 92 doctors of varying backgrounds, patients with sexual problems comprise 15% of family practice, 6% of internal medicine, 14% of obstetrics and gynecology, and 77% of psychiatry. Placed in another frame of reference, Masters and Johnson have estimated that 50% of married couples in the United States are sexually dysfunctional.

Sexual problems which occur commonly in the male are: premature ejaculation, impotence, and sexual inadequacy in the aging male. Sexual problems which occur commonly in the female are: orgasmic dysfunction (more commonly known as frigidity), dyspareunia, vaginismus, and sexual inadequacy in the aging female.

The diagnosis of sexual dysfunction is made in most instances by the inclusion of a sexual or marital-sexual history as an integral part of the general history. Only occasionally will the patient's chief complaint be: "I (or we) have a sexual problem." Far more commonly, such symptoms as fatigue, lack of energy, upper abdominal distress, low back pain and pelvic pain, are given. Indeed, the majority of cases

of sexual dysfunction will be missed if a sexual history is omitted.

Once the diagnosis is established, through history and complete physical examination, and the couple has indicated that they wish to undergo treatment, the family physician as well as other primary care physicians will either accept the couple for treatment or refer them to a qualified resource, either within or without the medical profession. The question arises: Should a primary care physician undertake the treatment of couples who are sexually dysfunctional? The answer is a qualified yes, and the important qualifications are:

- 1) The physician should be comfortable. Evidence of discomfort or embarrassment on the part of the physician will effectively bar productive counseling.
- 2) The physician should be nonmoralistic and nonjudgmental. Our role is that of a concerned professional who has special knowledge to impart to his patients and who guides them to effective self-help in seeking solutions to their problems.
- 3) Some knowledge of the subject is essential, but this is rather easily acquired and not as critical as the acquisition of those attitudes enumerated above.

Of the common sexual problems referred to earlier in this paper, premature ejaculation is the most common problem in the male by far, and orgasmic dysfunction (frigidity) of one kind or another is the most common problem in the female. The other common sexual dysfunctions, impotence in the male, and dyspareunia and vaginismus in the female, while less common, also create very, very serious problems in heterosexual relationships.

Every person engaged in the diagnosis and treatment of these and other sexual dysfunctions recognizes the invaluable contribution of Masters and Johnson in the field of sex research and therapy. Centers for the treatment

†Presented at the 1973 KMA Annual Meeting, September 20, Louisville

*Chairman, Division of Human Sexuality, Department of Obstetrics and Gynecology, University of Louisville School of Medicine, Louisville

of sexual inadequacy based on their reported experiences have sprung up throughout the country.

The management of sexual inadequacy, regardless of its particular form, is based on a number of concepts:

- 1) Conjoint marital unit therapy. Both partners in the marriage are involved in therapy.
- 2) Alleviation of fears and anxieties over performance. Masters and Johnson have stated "... fear of inadequacy is the greatest known deterrent to effective sexual functioning, simply because it so completely distracts the fearful individual from his or her natural responsivity by blocking reception of sexual stimuli, either created by or reflected from the sexual partner."
- 3) Rebuilding self-confidence.
- 4) Establishment of effective communication between partners.

There are a number of physical procedures used in the treatment of sexual dysfunctions. However, it is to be emphasized that these techniques are of little or no value without supportive psychotherapy for the marital relationship. In other words, the treatment of the sexually dysfunctional couple consists of a combination of interviews on an individual and couple basis, and instruction in certain physical procedures carried out in the bedroom.

Before outlining the specific techniques utilized in the management of premature ejaculation in the male, and orgasmic dysfunction in the female, it is important to emphasize that one physical procedure, sensate focus, is utilized in the treatment of all dysfunctions. Sensate focus consists of exercises in which couples learn to feel and respond pleurably to simple touching and stroking, and to communicate what sensory experiences are pleasurable.

An Outline of Physical Procedures Utilized in the Treatment of Premature Ejaculation*

- 1) Unequivocal assurance that premature ejaculation can be reversed.
- 2) Sensate focus.
- 3) Manual stimulation of the penis by wife.
- 4) "Squeeze" technique when ejaculation is imminent, with thumb on frenulum and first and second fingers on the dorsal surface of

the penis (above and below the coronal ridge), pressure is applied by wife for three to four seconds.

5) Coitus in female-above position, wife remaining motionless to accustom husband to intravaginal containment and employing squeeze technique whenever husband's excitement intensifies.

6) Husband thrusts sufficiently to maintain erection.

7) Lateral coital position—female supine above male at an angle in which her weight rests on her left knee which is outside his right leg.

8) Couple should continue to employ the squeeze technique six to twelve months post-therapy and whenever needed.

An Outline of Procedures Utilized in Treatment of Orgasmic Dysfunction in the Female*

1) Identify things husband does or fails to do which displease the wife sexually. Explore wife's history of sexual experience and sexually-imaged memories.

2) Discussions following sensate focus exercises to comprehend etiology.

3) Emphasize that sexual excitation and orgasmic release cannot be willed or forced; orgasmic response is more a matter of accepting erotic stimuli.

4) Suggestions to avoid tension-provoking behavior, and encouraging women to discover and share sexually-stimulating experiences, thus giving her "permission" to express her sexual feelings.

5) After effective sensate focus procedures, genital play is permitted with husband in seated, slightly reclining position, wife between his legs with her back against his chest. By squeezing his legs or directing his hands, the wife guides husband's caresses. It is important that he follows her stimulative direction. This position allows husband access to wife's entire body, provides security for the woman (back protected phenomenon), and dissipates self-consciousness or spectator role.

6) Instruction to male in stimulative technique: Do not approach clitoris directly—it is too sensitive. Manipulate the general mons area, particularly the clitoral shaft, the inner thighs, and labia. Fingers should maneuver

**Modified from Medical Aspects of Human Sexuality, July 1970.*

lubrication from vaginal outlet to the clitoral area. Most effective in early stages is a teasing approach, with stimulation varied at random to and from breasts, abdomen, thighs, labia, interlaced with stroking of nonsexual areas using the sensate focus exercises. Husband must not try to force responsivity, but rather should accommodate her desires with warmth and cooperation. Frustration is to be avoided by security in the knowledge that there will be many repeat opportunities in the immediate future.

7) Following success in manual genital excitation, coitus is engaged in, using female-superior position, controlled, slowly-exploring pelvic thrusting on part of wife to absorb awareness of penile containment while husband lies still, making no demands.

8) Once vaginal sensation develops in a pleasant, even demanding vein, husband may thrust nondemandingly at a pace communicated by wife. Coitus in female superior position should be interrupted periodically. Couples should lie together in each others arms, and then return to love play and coitus. (If husband ejaculates, the experience should be enjoyed for itself, with assurance that experience can be repeated within a reasonable period of time.)

9) Once confidence in female-superior coital position has been established and woman enjoys sensate pleasure of intravaginally contained penis, the couple may employ lateral coital position. Wife is supine above husband at a 30° angle with her left leg outside his right leg, her right thigh upon his left thigh, and right leg between his two, and his head and her face resting on pillows. This is the most effective coital position permitting mutual freedom of pelvic movement.

Particularly with the warm interest and emotional support of the husband, many women develop a pattern of orgasmic release.

Summary

Sexual problems occur very commonly in our society, especially those revolving around sexual responsiveness. The most common occurring sexual problems have been identified and certain therapeutic concepts and specific physical procedural techniques developed by Masters and Johnson have been discussed.

A plea is made for the case that primary care physicians of all kinds can and should participate in the diagnosis and treatment of couples who present themselves with varying kinds of sexual dysfunction.

Manuscript Memos

Manuscripts should be submitted in duplicate to The Journal of KMA, an original copy and one carbon, and typed with double spacing. Maximum length of an article should not exceed 4500 words; the Board of Consultants on Scientific Articles prefers that they be briefer than this when possible.

In submitting a manuscript, the author is requested to include a concise summary, not to exceed 35 words, to be used as a sub-title when the article is published in The Journal. The purpose of the summary is to create additional interest and encourage greater readership.

Footnotes and bibliographies should conform to the style of the Index Medicus. This requires in the order given name of author, title of article, name of periodical, with volume, page, month—day of month if weekly—and year. The Journal of the KMA does not assume responsibility for the accuracy of references used with scientific articles.

All scientific material appearing in The Journal is reviewed by the Board of Consultants on Scientific Articles. The editors may use up to six illustrations with the essayist bearing the cost of all over three one-column halftones.

Arrangements for reprints of an article should be made directly with the publisher of The Journal, Gibbs-Inman Printing Company, 817 W. Market St., Louisville, Ky.

The bylaws of the Kentucky Medical Association provide that all scientific discussions and papers read before the KMA Annual Meeting shall be referred to the KMA Journal for consideration for publication. The bylaws further state that the editor or the associate editor may accept or reject these papers as it appears advisable and return them to the author if not considered suitable for publication.

Please mail your scientific articles to The Journal of the Kentucky Medical Association, 3532 Ephraim McDowell Drive, Louisville, Kentucky 40205.

Pedunculated Lymphangioma of the Cecum: A Case Report

DAVID R. HENDRICK, M.D.*, LEONIDAS MOSTOWYCZ, M.D.**
and MARTHA D. VAZQUEZ, M.D.***

Lexington, Kentucky

Lymphangiomas are extremely rare tumors of the gastrointestinal tract. Ten documented cases of lymphangioma of the colon, excluding the rectum, have been reported in the English literature. Only two prior cases have been reported as being pedunculated roentgenologically, and only one previous case has been described in the cecum.

Case Report

A 64-year-old male was admitted to the Veterans Administration Hospital on October 18, 1972, in order to evaluate episodes of rectal bleeding. Past history revealed that the patient periodically had experienced crampy lower abdominal pain with intermittent rectal bleeding dating back to 1963. A barium enema at another hospital in 1967 demonstrated a cecal filling defect (Fig. 1), but an exploratory laparotomy was negative.

Because of persistent guaiac positive stools, another barium enema was performed at the VA Hospital. Upon the retrograde flow of barium into the cecum, partial filling showed a fluctuant, sharply demarcated, radiolucent, polypoid filling defect. The lesion was not as obvious with further filling of the cecum with barium. It was seen again clearly on the post-

evacuation roentgenograph (Fig. 2A). Manual compression of the cecum revealed the mass to be fluctuant, changing its contour (Fig. 2B). The mucosa appeared intact over the lesion.

A supplemental air contrast barium enema was performed, again displaying the smooth and well demarcated lesion (Fig. 3). The polypoid mass measured approximately 3 x 3 cm and remained relatively fixed with the patient in the supine position; however, in the prone position, it would rhythmically flop back and forth in the air distended cecum upon jiggling of the patient, indicating its posterior attachment by a broad based pedicle. The radiological impression was that of a pedunculated polypoid lesion of the cecum, most likely representing a lipoma because of its previously described roentgenographic characteristics.

In view of such clear-cut radiographic find-



FIG. 1—Previous barium enema in 1967 at another hospital reveals an irregular filling defect of the cecum. An exploratory laparotomy at this time was negative.

*Resident, Department of Diagnostic Radiology, University of Kentucky Medical Center, Lexington

**Chief, Department of Radiology, Veterans Administration Hospital, Lexington, and Associate Professor of Radiology, University of Kentucky Medical Center, Lexington

***Chief, Laboratory Service, Veterans Administration Hospital, Lexington, and Assistant Professor of Radiology, University of Kentucky Medical Center, Lexington

ings, a second exploratory laparotomy was undertaken. At surgery, an approximately 2-3 cm pedunculated polyp was seen to be attached to the posterior cecal wall. Its mucosal stalk was severed and the patient had an uneventful recovery.

Pathological examination revealed the specimen to be an irregular polypoid, pale tan to reddish tan mass, measuring 3 x 2.5 x 2 cm (Fig. 4). The surface was slightly rough and lobulated. Cut sections demonstrated a whitish tan surface with small, irregular, semitranslucent cystic spaces which contained clear serous fluid. Microscopically, the mass was covered by normal colonic mucosa and was a honeycomb of cystic spaces, some lined by flattened endothelium and separated from each other by dense, fibrous connective tissue septa. Focally, the mucosa contained tumor (Fig. 5). The septa were thick in some areas with edema and discrete collections of lymphoid tissue and in other areas were thin. The cystic spaces contained some acidophilic material forming a lace-like pattern. The final diagnosis was a cystic lymphangioma of the cecum.

Discussion

It has been almost 100 years since Arnott³ in 1873 first described an intra-abdominal lymphatic cyst involving the mesenteries and transverse colon of a child. Since then, only 10

cases have been documented of the colon (excluding the rectum) in the English literature, attesting to its rare occurrence. Arnett² described the roentgenologic characteristics of a colonic lymphangioma (ascending colon) for the first time in 1956. Koenig¹¹ (1955), Higgason¹⁰ (1958), Ochsner¹⁴ (1959), and Greene⁸ (1962) reported cases involving the transverse colon. Fleming⁶ (1970) and Girdwood⁷ (1971) described cases in the descending colon. Alvich¹ (1960) reported a case in the hepatic flexure and Lowell¹² (1962) reported a case in a sigmoid flexure. Nagle¹³ in 1968 reported a case in the cecum.

Aside from benign adenomatous polyps of the colon, emphasis has always been placed on the rarity of benign tumors of the large bowel. The works of Raiford¹⁵, Helwig⁹ and Erhlich⁵ are often cited. Raiford in reviewing a large series of intestinal lesions found only 87 benign tumors of the colon, excluding adenomas, in 45,000 consecutive surgical specimens and 11,500 consecutive autopsies. Helwig found 154 benign tumors, aside from adenomas, in 1,460 consecutive autopsy examinations of the large bowel. Erhlich, in studying material from the Armed Forces Institute of Pathology for the period of the Second World War, found 263 benign tumors. None of these authors reported a single case of a lymphangioma in the colon.



FIG. 2A—There is better visualization of the lesion with only partial filling of the cecum on the post-evacuation roentgenogram. (left)

FIG. 2B—Manual and cone compression of the cecum reveals the mass to be fluctuant, changing its contour.

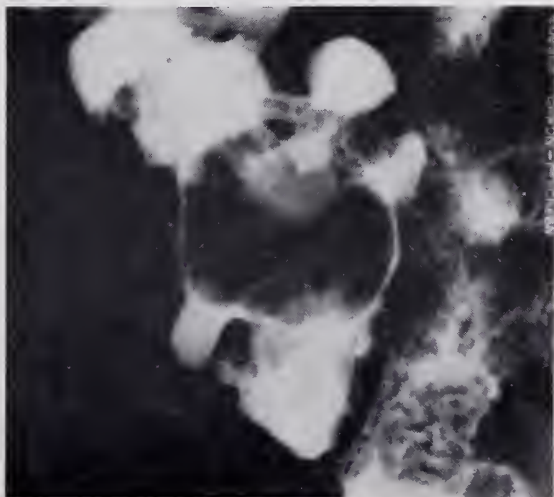




FIG. 3—The air contrast barium enema reveals the lesion to better advantage.

Alvich¹ gives a good etiological and pathological discussion in his case report. Some feel that lymphangiomas are hamartomas, i.e., non-neoplastic malformations or inborn errors of tissue development. Therefore, one would expect to find an abnormal mixture of tissue indigenous to the area with an excess of one or more. These malformations are thought to enlarge not by proliferation but by the opening of new channels in the tissue as the existing endothelial cells secrete fluid. Others indicate that lymphangiomas in the bowel may be caused by back pressure from lymph nodes that are obstructed, resulting in stasis and lymphoid dilatation. However, if the latter theory were true, one would expect to find a much greater incidence of bowel lymphangiomas during exploratory laparotomies when enlarged lymph nodes are encountered. Such has not been the case.

Symptoms and Clinical Findings

As in our case, the symptoms and signs caused by colonic lymphangiomas are usually nonspecific and vague. However, the only other case of a lymphangioma of the cecum¹³ did present as an intussusception projecting up to the mid ascending colon. Most of the cases have presented with nonspecific, crampy abdominal pain. A few have had melena. Koenig's¹¹ case of the transverse colon was found by a barium enema examination as part of a routine annual health study; the patient was asymptomatic. Interestingly enough, the majority of cases that have presented with evidence of bleeding have revealed an intact

mucosa over the lesion without any evidence of hemorrhage from the lymphangioma.

Treatment

Most authors agree that bowel resection is preferable to simple excision of the lesion, citing Beahrs⁴ et. al., who reported that two of their nine cases of extra-intestinal, intra-abdominal cysts were found to be malignant. Higgason¹⁰ stressed the possibility that a large diverticulum could form at the site of the cyst bed after local resection due to weakening of the bowel wall. Our case will be followed with interest in this respect since no bowel resection was performed.

Roentgen Aspects

Arnett² in 1956 was the first to report on the roentgenographic characteristics of colonic lymphangiomas. As was true then, a preoperative diagnosis has never been made owing to the fact that these lesions are so rare. However, lymphangiomas do have certain characteristics, as seen in this case and others that should make the radiologist mention this entity in the differential diagnosis when certain criteria have been met.

The lesion is usually best demonstrated with only partial filling of the colon with barium. The lesion in our case was seen easily at fluoroscopy as barium began to enter the cecum, as well as on the air contrast study; it became obscured almost completely when the



FIG. 4—The excised gross specimen.

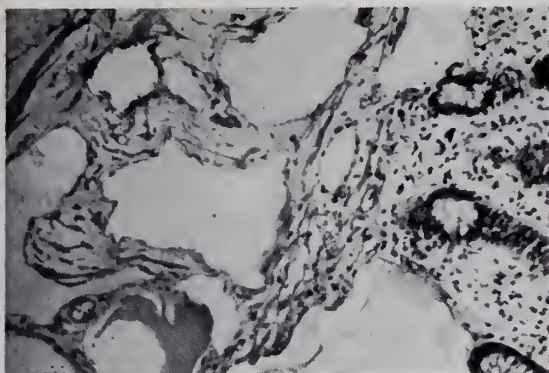


FIG. 5—Photomicrograph (250X). The tumor can be seen extending between the mucosa.

cecum was distended with barium. Also, lymphangiomas will reveal their fluctuant nature, and change shape and contour with compression. One must also be suspicious if the lesion appears relatively radiolucent. Thus, the differential diagnosis of any filling defect in the colon which is radiolucent, sharply demarcated, and changes shape with compression should include a lymphangioma. Other entities to be included in the differential diagnosis would be an adenomatous polyp, a leiomyoma, an enterogenous cyst, a cavernous hemangioma, an isolated submucosal varix, or a lipoma. All of these display similar roentgenographic and fluoroscopic characteristics. Probably the easiest to distinguish is the adenoma and the leiomyoma because they do not change shape during peristalsis and compression as do the other lesions mentioned. They are also not as radiolucent. Of the other entities, lipomas have been most often included in the preoperative differential diagnosis because of their radiolucency and partial compressibility and, of course, because of their more frequent occurrence.

Arnett² claimed that the demonstration of a pedicle should exclude the diagnosis of a lymphangioma; however, since that time Ochsner¹⁴ and Koenig¹¹ have reported pedunculated lesions roentgenologically in the transverse colon. Most cases have been seen in the transverse, descending or sigmoid colon. Arnett's² case involved the ascending colon and Nagle's¹³ case the cecum, although the latter was not demonstrated roentgenographically before surgery. Thus, it is believed that our case represents the third pedunculated colonic

lymphangioma seen roentgenographically and the first lymphangioma of the cecum demonstrated preoperatively.

Of course, as with all polypoid lesions of the colon, the best radiographic study is the air contrast barium enema performed after proper patient preparation. Our case is unique in that cine fluoroscopy could vividly demonstrate to all the lesion flopping back and forth as it hung from its pedicle.

Summary

A case of a pedunculated lymphangioma of the cecum is reported. The roentgenographic characteristics of colonic lymphangiomas are reviewed and reveal that, when certain criteria have been met (a compressible, sharply demarcated, radiolucent filling defect), this rare lesion of the colon should be included in the differential diagnosis.

References

1. Alvich, J.P., and Lepow, H.I., Cystic lymphangioma of hepatic flexure of colon: Report of a case. *Ann. Surg.*, 152:880-884, Nov. 1960.
2. Arnett, N.L., and Friedman, P.S., Lymphangioma of the colon: Roentgen aspects: A case report. *Radiology*, 67:882-885, Dec. 1956.
3. Arnott, H., Large lymphomatous tumor connected with the colon and omentum of a child, and accompanied by growths in other parts. *Tr. Path. Soc. London*, 25:150-155, Dec. 1873.
4. Beahrs, O.H., Judd, E.S., Jr., and Dockerty, M.B., Chylous cysts of the abdomen. *Surg. Clin. N. Amer.*, 30:1081-1096, August 1950.
5. Ehrlich, J.C., and Hunter, O.B., Jr. Tumors of the gastrointestinal tract. *Surg., Gynec. and Obst.*, 85:98-106, July 1947.
6. Fleming, M.P., and Carlson, H.C., Submucosal lymphatic cysts of the gastrointestinal tract: A rare cause of submucosal mass lesion. *Amer. J. Roentgenol.*, 110:842-845, Dec. 1970.
7. Girdwood, T.G., and Philp, L.D., Lymphatic cysts of the colon. *Gut.*, 12:933-935, June 1971.
8. Greene, E. I., Kirshen, M.M., and Greene, J.M., Lymphangioma of the transverse colon. *Amer. J. Surg.*, 103:723-726, June 1962.
9. Helwig, E.B., Benign tumors of the large intestine; incidence and distribution. *Surg., Gynec. and Obst.*, 76:419-426, Apr. 1943.
10. Higgason, J.M., Lymphatic cyst of the transverse colon. *Amer. J. Roentgenol.*, 79:850-853, May 1958.
11. Koenig, R.R., Claudon, D.B., and Bryne, R.W., Lymphatic cyst of the transverse colon. *Arch. Path.*, 60:431-434, Oct. 1955.
12. Lowell, E.J., Jr., Cystic lymphangioma of sigmoid flexure: Report of a case. *Dis. Colon Rectum*, 5:203-205, Jan.-Feb. 1962.
13. Nagle, R., Lymphangiomatous hamartoma with intussusception of the caput caeci. *Brit. J. Surgery*, 55:879-880, Nov. 1968.
14. Ochsner, S.F., Ray, J.E. and Clark, W.H., Lymphangioma of the colon: A case report. *Radiol.*, 72:423-425, March 1959.
15. Raiford, T.S., Tumors of the small intestine. *Arch. Surg.*, 25:122-177, July 1932.



GRAND ROUNDS



The University of Louisville School of Medicine

This Journal feature will be presented alternately by the University of Louisville and the University of Kentucky Departments of Medicine and Departments of Surgery. We hope to have these features revolve around subjects of immediate practical interest to the practicing physician; and, for those of us not able to attend grand rounds in the teaching centers as often as we might, we hope this will represent a bit of a refresher course.

Intraperitoneal Infection and Emergency Operation in Patients on Long-Term Corticosteroid Therapy*

MULTIPLE problems attend the management of the patient requiring an emergency operation in the face of long-term corticosteroid therapy. The following case presentations represent examples of such illness recently encountered on this service.

Case Reports

A 53-year-old boiler room supervisor was admitted to the hospital for treatment of an exacerbation of rheumatoid arthritis. He had had rheumatoid symptoms and physical findings for two years and had been treated with gold, physical therapy, and aspirin. He had been receiving prednisone 40 mg every other day for at least six months before admission. He was continued on prednisone and physical therapy. On the fifth hospital day the patient complained of lower abdominal pain. A barium enema was done and interpreted as normal. On the seventh hospital day abdominal distension, temperature elevation, and leukocytosis of $15,900/\text{mm}^3$ with left shift were observed. Surgical consultation disclosed a large tender pelvic mass. Emergency laparotomy was done and a large pelvic abscess presumed secondary to a perforative colonic diverticulum, was drained. A right transverse colostomy was also performed. The postoperative course was uncomplicated, but further colon x-ray studies and sigmoid resection are planned for this patient.

A 57-year-old retired medical photographer

was admitted to the hospital for chest pain. He was afflicted with severe deforming rheumatoid arthritis and had been treated with gold and prednisone in varying doses for four years. An acute, inferior wall myocardial infarction was diagnosed. The patient enjoyed an essentially uncomplicated recovery for four weeks at which time he developed pneumococcal pneumonia. This responded to antibiotic therapy and an increase in methylprednisolone dosage to 125 mg every three hours. Five days later the patient developed pain in his left lower quadrant. No temperature elevation was present. Physical examination disclosed lower abdominal tenderness and tenderness on rectal examination but no mass. The white blood cell count was $14,700/\text{mm}^3$ with 12% stab forms and 83% PMNs. An exploratory laparotomy disclosed free pus in the peritoneal cavity. A pelvic abscess was drained and a right transverse colostomy was performed. Postoperatively the patient's course was uncomplicated. Two days after operation the leukocyte count had returned to 5,800. This case was particularly remarkable in that the only objective signs of peritonitis were mild tenderness and an elevated white count.

Discussion

The initial problem in dealing with such patients is that of a very difficult clinical diagnosis. Patients on chronic steroid therapy with various drugs at variable doses are notorious for the absence of clinical signs of inflammatory and infectious disease. These patients present extremely benign and reassuring clinical courses, with intra-abdominal sepsis literally masked by substantial doses of corti-

*From the Weekly Complications Conference of the University Surgical Service at the Norton Division of Norton-Childrens Hospitals, Inc., and the Department of Surgery, University of Louisville School of Medicine

corticosteroids. Indeed, it has been said that the typical history, physical findings, and laboratory and radiologic data are so grossly distorted in such patients that the presence of an abnormality in any one of them is sufficient to require thorough investigation of the patient and a strong suspicion of progressive peritonitis.

The preparation of such patients for operation actually is much simpler. Tripling the standard dose of corticosteroid on the day of operation is considered the rule of thumb, with a stepwise reduction back to normal maintenance dosage over the week following operative intervention if the patient convalesces without a major identifiable complication and resultant source of stress. A history of the administration of corticosteroids any time in the relatively recent past may well be an indication for support during a period of stress as it is virtually impossible to predict the likelihood of clinical adrenal failure.

The peculiar characteristics of the patient on corticosteroid treatment with respect to infection have been the subject of a lengthy and continuing investigation at the Price Institute of Surgical Research. Some objective parameters of this aspect of the patient's illness have been quantitated with great accuracy, with the necessary assumption that this data can indeed be transposed to man. For example, Brothers and his associates¹ recently reported that even short-term high dose corticosteroid therapy, such as has been recommended and used by some individuals as an adjunct to the treatment of shock and other low perfusion states, is as profound an enhancer of infection in the experimental animal as is the notorious chronic, low dose preparation. These data were documented by *in vivo* measurements of bacterial growth rates which provide exquisite sensitivity for the determination of the host's response. Subsequently, Fuenfer and colleagues² have shown that many corticosteroid compounds exert an adverse effect upon the ability of the leukocyte *in vitro* to achieve intracellular killing of ingested bacteria. Specifically, the phagocytosis proceeds almost normally, but intracellular killing is markedly impaired. This is noted for both hydrocortisone sodium phosphate and succinate and to a lesser degree for dexamethasone. Peculiarly, methylprednisolone sodium

succinate was entirely free of such enhancement—which implies that, if corticosteroid preparations are indeed warranted when infection is a recognized clinical entity or is strongly suspected, this may well be the steroid of choice.

The objective measurement of the effect of corticosteroid compounds in some illnesses is, of course, difficult because they have been applied very often as adjunctive forms of therapy and to long-term, debilitating chronic illness. The response parameters are therefore not clear, and some justifiable debate persists as to the efficacy of corticosteroid compounds in many such illnesses. Of 50 patients with active, progressive rheumatoid arthritis reported by Nielsen and others,³ 32% required discontinuation of treatment because of complications. Most common among side effects were mental disturbances (24%), gastric or duodenal ulcer (18%), osteoporosis (spontaneous fractures) (6%), and pneumonia (14%).

While debate continues as to the usefulness of corticosteroids in treating some forms of shock, there is a common thread regarding laboratory experiments which bear similarity to observations made in antibiotics experiments 20 years ago. Specifically, pretreatment is the key to success in obtaining reversal of certain deleterious clinical states with corticosteroids. However, pretreatment is not often possible in the clinical setting, and one must balance both philosophically and practically any possible advantages of pretreatment with possible adverse effects as so clearly emphasized in the two patients under discussion. Warren has made some initial clinical observations in choosing one clinical situation in which pretreatment is possible—i.e., elective, extremely extensive and traumatic operations.⁴ Examples of these are portacaval shunts, major hepatic resections, pelvic exenteration, and other similar procedures. It may well be that pretreatment with corticosteroids before such a traumatic challenge, which always includes substantial blood loss, will have some beneficial effects. This is currently under study in a clinical trial and remains to be determined.

Summary

The points of particular clinical difficulty and possible danger in undertaking an emer-

gency operation in a patient who has been the recipient of chronic corticosteroid therapy have been discussed in several settings. The extreme difficulty of diagnosis with absent signs of inflammation and infection has been emphasized as well as the need for increased levels of exogenous corticosteroids during any such stressful illness and/or operation.

Acknowledgment

The patients referred to in the case reports were kindly referred by Doctors Frank Lehn and Mary Osborne.

References


1. Brothers, J. R., Olson, G. and Polk, H. C., Jr.: Enhancement of Infection by Corticosteroids: Experimental Clarification. *Surg. Forum* 24:30, 1973.
2. Fuenfer, M. M., Olson, G. and Polk, H. C., Jr.: Effect of Various Corticosteroids on Neutrophil Function. Submitted for publication.
3. Nielsen, J. B., Divsholm, A., Fischer, F. and Brochner-Mortensen, K.: Long-term Treatment with Corticosteroids in Rheumatoid Arthritis (Over a Period of 9 to 12 Years). *Acta Med. Scand.* 173-177, 1963.
4. Warren, W. D.: Personal communication, 1974.

TIMOTHY OLDFATHER, M.D.

WILLIAM BIZOT, M.D.

DAVID KINNAIRD, M.D.

HIRAM C. POLK, JR., M.D.



Professional *Protection*

CONTINUOUSLY

Since 1899

THE

MEDICAL PROTECTIVE COMPANY

FORT WAYNE, INDIANA

LOUISVILLE OFFICE: Riley Lassiter, Representative
Suite 260
Shelbyville Road Mall Office Center
400 Sherburn Lane
Telephone: (Area Code 502) 895-5501
Mailing Address: P.O. Box 20065, Louisville, Kentucky 40220

SPECIAL ARTICLES

Health Services of the Ukraine†

GEORGE F. BROCKMAN, M.D.*

Mr. K. was not a physician, but had an excellent command of English and a thorough knowledge of health problems administratively.

The Constitution of the Ukraine SSR, adopted in 1953, specifically guarantees health care for all. During the five years from 1966 to 1970 expenditures of the Ministry were at the rate of 347 million rubles annually. Presently they are at the rate of 464 million rubles.

The population served is 47.5 million, with 26.28 million classified as urban and 21.21 million classified as rural.

Government medical service is provided through:

a. **Hospitals**—primarily by general hospitals fairly comparable to general hospitals as we know them. In addition to these general hospitals there are a number of special institutes devoted to categories, such as cancer, heart disease, surgery (in terms of surgical research and special problems).

b. **Polyclinics**—ambulatories strategically deployed by population and geography. The adult polyclinic is served by a number of physicians, predominantly general practitioners. Appropriate specialists are present for the out-patient services applicable to their specialty. In addition to the adult polyclinics, there are about 50% more pediatric polyclinics which take care of children to the age of 16, at which time their medical record is transferred, and their care is transferred, to an adult polyclinic. Attendance at the children's polyclinic is mandatory at least to the extent of immunizations.

c. In addition to these institutions of the

Ministry of Health, there is a municipal emergency resuscitative service, with equipment for handling acute coronaries, acute pulmonary failure, etc. These have no hospital facilities but deliver their patients to the Ministry of Health facilities. Normally, the patient secures out-patient care at the polyclinic to which he is assigned, routine emergency care in the same manner, but has the additional coverage of the municipal emergency service. On weekends, the pattern seems to be pretty much that the polyclinic leaves the emergency service to either physicians at the polyclinic or to the municipal facility. Attached to the Ministry of Health is a transportation section, which handles routine ambulance transportation as directed by the physicians of the polyclinics and hospitals.

Hospital beds, per 10,000 people, are 107 for general hospitals, 11.5 for tuberculosis, and 11.2 for mental disorders. In addition to the hospital beds, there are 45,000 people on Social Security, who reside in boarding homes, and who are served by medical personnel attached to Social Security.

There are 135,000 physicians in the Ukraine SSR, giving the rate of one physician per 360 population. This is regarded as inadequate and is to be reduced within five years to one physician per 320 population, through annual increments of 4,000 per year.

To illustrate the normal operation of the system, consider a worker with an acute sore throat. He may secure medical attention by going to the polyclinic, or by having his wife phone to report his illness to the polyclinic. A polyclinic team including a physician will make a house call within four to six hours. If the physician feels he can be treated at home, he prescribes and gives the patient a statement of sick-leave for from three to seven days, as may be appropriate. Before the patient can return to work, however, the directors of em-

†Abstract of a presentation made by Mr. Komenchlia of Kiev, of the Technologic Propaganda of the Ministry of Health of the Ukraine SSR on October 26, 1973.

*Observations and impressions of Doctor Brockman following a trip in October, 1973, to study medical care in the USSR and Finland. Doctor Brockman, a former KMA President, practices in Greenville.

ployment require that he have a complete certification as to his illness. This will be completed when the patient reports for examination by the same physician at the polyclinic. If the physician has written a prescription, the patient or his family fills it at an apothecary (APTEK) which is a state-operated pharmacy. At present one pharmacy is available per 12,000 population, but rapid increases are expected to provide one pharmacy per 6,000 population. The patient must purchase the medication. The average medication for a short-term such as a sore throat would apparently cost from 40 to 60 kopeks.

Birth control is available chiefly through mechanical means, although there has been the fairly recent introduction of oral contraceptives. These are available as a form of family counselling service (for females) at polyclinics. Because of the population deficit from World War II, population control is not a matter of state policy. Abortions are performed, but in general are only for reasonable medical indications. There are no figures on illegitimate or teenage pregnancies, as the only record of a parturition or child has to do with the mother's appropriate identification, and not with that of the father.

Drug abuse is no particular problem.

Alcoholism is not a problem. Mr. K. stated, with a perfectly straight face, that only two million working days were lost to alcoholism in the entire Soviet Union in a year.

Polyclinic physicians have no contact with the hospital care of patients. After four years service in the polyclinic they receive a refresher course in a medical institute for about six weeks, and after an additional period of service, they receive a refresher course of about three months.

A Polyclinic In Leningrad

The polyclinic studied is located in the Moskava District of Leningrad. It was established in 1963 to serve a population of 52,000 people. The Director is a woman physician. She is assisted by three deputies. One physician supervises treatment, one physician supervises disability appraisals and diagnosis, and a third deputy is a non-physician in charge of budget and finance. There are a total of 363 employees, including 104 physicians, 190 nurses, and 50 nurse aides and maintenance persons. Facilities include x-ray, ECG, two

laboratories (one for chemistries and one for microbiology), an extensive battery of physical therapy equipment, and some central pulmonary machines for out-patient treatment of chronic lung disease.

The physicians work 30 hours per week, with the general practitioners working a 7-½ hour day and the specialists a 6-hour day. The general practitioner is scheduled to spend about four hours in the clinic, during which time they are scheduled for 20 patient visits, ordinarily 50% initial visits and 50% re-visits. A particular general practitioner is assigned to about 2,000 patients that he observes on a continuing basis. The remaining 3-½ hours of his day's work is devoted to house calls, which ordinarily average six to eight in that period of time. Where it is appropriate, the specialists also make house calls. The polyclinic is affiliated (quite loosely) with a general hospital located at a distance of about two kilometers.

In addition to providing treatment for acute disorders, the polyclinic maintains a roster of chronic disease patients who are routinely re-examined from two to four times annually according to the illness. This may cover such things as chronic pulmonary disease, heart disease, tuberculosis, etc.

The patient generally expects treatment from the physician to whom he is assigned. When there is disagreement as to the patient's disability or the appropriateness of treatment, there is a formal mechanism for resolving these by a special board of arbitration. Another source of conflict is that many of the larger industrial organizations maintain their own polyclinics. If the patient is stricken while at work, he may be treated initially there and referred to his home polyclinic, or be cared for by the factory polyclinic. It is not uncommon for the two polyclinics to disagree as to illness and disability, and in this circumstance (the Director says) "There is further discussion."

The Moskova District has four similar polyclinics. In addition, there are seven pediatric polyclinics, three dermatologic polyclinics, a neuropsychiatric polyclinic or institute, and a tuberculosis establishment. The polyclinic with a population of 52,000 normally logs about one-half million patient visits per year. For budget purposes, these are estimated to cost four kopeks per medical visit and 20 kopeks per surgical visit.

Physical facilities inspected at the clinic did

not include laboratory, x-rays, or the ECG facilities. They had an extensive battery of diathermy and various other forms of physical therapy. In the emphysema clinic, four patients were being served from a crude machine, with a common container piping out the inhalation medication to each patient. The American group shuddered at the high rise of Pseudomonas to be expected from this.

Patients with active tuberculosis are treated for 10 months, on salary, while under treatment in an institution. Two additional periods of two months each may be added to this at the discretion of the medical facility. It is reported that five years ago they had a special campaign for the identification of tuberculosis and that this has reduced their tuberculosis population approximately in line with those in the United States, and has now reached a plateau as ours has.

Medical Care In Finland

For a population of 4.6 million, there are 6,000 physicians making a physician-population ratio of one to 800. This is regarded as insufficient and the number of medical faculties for training has been increased to a total of five so that there is an intake of 600 students per year. Students are about 27% female these days. The previous pattern of medical education has included what amounts to 6-½ years of University work. It is at present established on a level of 4-½ years University work but there is under discussion various schemes for providing additional special training, including general practice, that would lead to a total medical education experience of 8-½ to 10-½ years of college postgraduate level work. At least part of this will be in a preceptorship fashion.

The majority of the physicians in Sweden are in salaried positions, with only a few in strictly private practice. However those in salaried positions are permitted to have private practice and most do. For private practice, there is a tendency for a physician to congregate in groups and in Helsinki there is one group that contains 100 physicians.

Hospital care is provided in 20 central (general) hospitals. These are maintained by the communes, with an approximate 50% subsidy by the Finnish government. The commune is a taxing body that is appropriate for the construction of a central general hospital. Be-

cause the population is well scattered, the hospitals range in size from 300 beds in the extreme rural areas to 3,500 beds in the general hospital of Helsinki. Three thousand of the 6,000 Finnish physicians are on salary in hospitals, but as noted before these are primarily part-time jobs. A few of the high-level specialists have the privilege of admitting private patients. Another substantial volume of Finnish physicians are working in commune health centers, which is an ambulatory center established by some municipal authority. These physicians also are basically on salary but some of them have provisions for either increasing their pay for exceeding a given number of patients or for charging privately for seeing excess patients. Most physicians specialize. Specialization was formerly regulated by the Finnish Medical Association, but since 1961 has been regulated by statute. Surgery, internal medicine, and gynecology are the favorite specialties.

Both physicians and general practitioners congregate in urban areas. For physicians working in the hospitals the standard work week is 37 hours and does not include any on-call duty, which is paid for separately. In the health centers, the general practitioners work a 37-hour week which is devoted to both administrative and direct medical care. Medical fees for private practice are regulated by the Ministry. Hospitals are gathered together in an association which negotiates with the physicians about salaries, which have been frozen in an effort to control inflation. In hospitals, patients pay approximately 10% of expense increases through a form of government sickness insurance for which the payroll rate is 1.5% of income. For patients seen in private practice, the government insurance pays approximately 60% of the cost of physician services, prescription medications, x-rays, etc. For some chronic diseases and special forms of treatment the sickness insurance plans pay 100% of the cost of medication. A routine office visit to a general practitioner usually carries a fee of \$7 to \$10, with specialists charging approximately 50% more. Senior specialists in hospitals are paid about 5,000 marks per month (\$1200), although this is not the top limit. Because of the freeze on income and other restrictions, it is felt that the living standard of Finnish physicians is on the decline.

(Continued on Page 297)



Reflection on Colonoscopy

THERE is a rapidly growing awareness of the diagnostic and therapeutic value of colonoscopy. In Louisville alone, five major hospitals have purchased colonoscopes and these purchases are being seriously considered in three other hospitals. This obviously reflects mounting enthusiasm for this procedure by the physicians practicing in these various institutions. The rapid proliferation of availability of colonoscopes has quickly outgrown the supply of physicians trained to use the instruments. There are no criteria as to the "who should" and the "when should" aspects of colonoscopy; the uncontrolled use of this procedure could reach the point at which the only necessary indication for colonoscopy would be the "presence of the colon." To prevent this from occurring and to maintain the current low morbidity attributable to both diagnostic and therapeutic colonoscopy, one must select patients based on the value of information gained, measured against any morbidity produced by the procedure. The possible complications arising from colonoscopy are few, but by their nature, the effects on the patient are serious.

There are well established indications for colonoscopy. Its greatest service is in removing colon polyps which are beyond the reach of a standard proctosigmoidoscope. The advantages of the endoscopic removal of colon polyps include avoiding many needless laparotomies and general anesthetics, a significant reduction in hospitalization time and time lost from work, a greater than 50% reduction in the overall medical cost of managing lesions of the proximal colon, and all done with a morbidity rate which is far less than that attributable to a laparotomy-colotomy to achieve the same goal.¹ Other established indications include patients with undiagnosed rectal bleeding following a rectal examination, proctosigmoidoscopy examination, and contrast x-ray studies; also, patients with questionable radiographic find-

ings present on either a routine or an air-contrast barium enema. An emerging indication is a patient with a documented colon carcinoma. Colonoscopy can be performed before or during surgery to define other lesions, including synchronous carcinomas which might not ordinarily be included in the contemplated field of resection.

On the other hand, there are colonic disorders which are well-defined contraindications to colonoscopy; the risk of adversely affecting the patient's recovery greatly outweighs any beneficial information which might be derived from the procedure. Colonoscopy is not recommended in patients with any form of **acute** inflammatory disease of the colon. This includes ulcerative colitis, granulomatous colitis, diverticulitis, bowel obstruction, and toxic megacolon. There obviously are a few exceptions and when the diagnosis of one of the above conditions is in serious doubt, colonoscopy is justifiable, only however, following complete resolution of all signs and symptoms of the acute phase of the disease.

There is another group of colon disorders in which insufficient experience is available to judge the value of colonoscopy. Localization of the site of bleeding in diverticular hemorrhage has great appeal, however, the practical considerations of an inadequate colon preparation and the rapid aspiration of blood and clots make it of questionable value. As a screening procedure for occult colon cancer, colonoscopy has great potential, but once again, practical considerations weigh heavily against its routine use. The two-to-three day colon preparation and the one-to-two hour examination do not lend themselves well to a screening modality. However, should a rapid, simple screening parameter be developed with which a small high-risk group could be selected from the population at risk, then the use of the colonoscope on this selected group would be justifiable and a quite productive endeavor.

This procedure has so recently been established that no criteria for determining competence in the use of the flexible fiberoptic devices has been developed. However, at this stage, good conscience should dictate that some formal instruction should be obtained in their use before initiating such a program. In addition, considerable personal experience with diagnostic colonoscopy should be gained prior to initiating a program for the endoscopic removal of polyps.² One of the greatest attractions of this instrument is the low morbidity associated with its use which can only be maintained by reasonable training prior to its utilization.

We now have, at our disposal, an instrument which has been proven to be of significant diagnostic and therapeutic value, particularly in some currently ill-defined disorders. It is a gross understatement to say that "the

mere presence of the colon is **not** an indication for colonoscopy." There are well-defined indications, as well as contraindications for its use. The possible information obtained or benefits derived thereof must be carefully weighed, not only against the possibility of morbidity and the cost, but also against the time involved to achieve an adequately clean colon and the time required to perform the examination. Thought given to these considerations will maximize the benefits and maintain the present minimal morbidity of colonoscopy.

References

1. Knutson, C.O., Schrock, L.G., Polk, H.C., Jr., Polypoid Lesions of the Proximal Colon: Comparison of Experiences with Removal at Laparotomy and by Colonoscopy. *Annals of Surgery*: May, 1974 (in press).
2. Wolff, W.I., Shinya, H., A New Approach to Colonic Polyps. *Annals of Surgery*, 178:367, 1973.

CARL O. KNUTSON, M.D.

Regional Workshops Being Held On New X-Ray Standards

A Federal standard for diagnostic x-ray equipment becomes effective August 1 of this year. This equipment standard primarily applies to manufacturers and assemblers but users are also affected.

Because the final standard was extensively revised and amended since first proposed in 1971, it is not surprising that many individuals affected are not yet knowledgeable about its full implications.

Under the standard, x-ray manufacturers are responsible for producing equipment and components that perform according to requirements of the standard. Assembler's primary responsibility is to install the system according to the manufacturer's specifications and to use the type of components called for by the standard. He must certify that these two conditions have been met by filing specified forms with the Food and Drug Administration's Bureau of Radiological Health, the State Radiation Control Agency, and the purchaser.

One of the principal protection provisions of the standard requires machines to be capable of restricting the x-ray beam to the size of the film or fluoro-

scopic image receptor. The standard also contains provisions intended to make it possible for operators to reproduce more consistently a given image quality for given voltage, current, and time settings. This capability, in combination with good x-ray examination techniques, will tend to minimize film re-takes and unnecessary exposure.

To familiarize persons who are affected by the new standard, especially commercial installers and users who may perform their own installations, with their responsibilities under the new regulations, workshops are being conducted by the Food and Drug Administration. These one-day sessions are being held in various parts of the United States. The workshops will also include discussions of proposed federal requirements involving resale of used x-ray equipment. Persons interested in attending are urged to contact the FDA Radiation Officer in their region for additional information.

The FDA Radiation Control Officer in Kentucky's region is: Thomas R. Johnson, Jr., 880 West Peachtree St., N.W., Atlanta, Georgia 30309, (404) 526-3576.



ORGANIZATION SECTION



Guest Speakers To Provide Outstanding Scientific Program At 1974 KMA Annual Meeting, September 24-26

An outstanding scientific program will highlight the 1974 KMA Annual Meeting to be held September 24-26 at the Ramada Inn/Bluegrass Convention Center in Louisville. Many prominent guest speakers from Kentucky and throughout the nation are scheduled to participate in this year's annual session, according to Fred C. Rainey, M.D., Elizabethtown, KMA President.



Doctor Daly

Under the chairmanship of R. Glenn Greene, M.D., Owensboro, the KMA Scientific Program Committee has designed the program so that physicians in every medical specialty will be represented. A wide range of medical subjects will be discussed by guests of the Association, specialty group speakers, and local physicians during the three-day session.

Themes for the four general sessions include "The Sexes," "Hypertension," "Fetal and Neonatal Health," and "Food Facts and Fads."

Speaking during the opening session on September 24 will be Michael J. Daly, Jr., M.D., Philadelphia; A. Colin Markland, M.D., Minneapolis; and James D. McNeely, M.D., Louisville.

Doctor Daly, who is Professor of Obstetrics and Gynecology at Temple University Medical Center, will deal with the topic "Life Style Options and the Physician." An author of numerous publications on gynecologic oncology and psychophysiologic problems in obstetrics and gynecology, Doctor Daly is a member and serves on several national committees of the American College of Obstetricians and Gynecologists.

"The University of Minnesota Transexual Research Study" will be discussed by Doctor Markland, Professor of Urology at the University of Minnesota Medical School. A member of the American Urological Association and a Fellow of the American College of Surgeons, Doctor Markland is an editorial board member of *Urology* and *Journal of Human Reproduction*.

An Assistant Professor of Psychiatry at the University of Louisville School of Medicine, Doctor McNeely will speak on "Current Concepts in Marital Therapy." Doctor McNeely, a member of the American Psychiatric Association, also coordinates junior



Doctor Markland



Doctor McNeely

clerkships at Norton Psychiatric Clinic and is an adjunct Professor of Psychiatric Information for Ministers and Social Workers at Southern Baptist Theological Seminary in Louisville.

Meetings of 17 specialty groups, two meetings of the KMA House of Delegates, the President's Luncheon, a wide variety of scientific and technical exhibits, and the Annual Convention of the Woman's Auxiliary to KMA will also take place during the 1974 session. All activities will be held at the Ramada Inn/Bluegrass Convention Center located at the intersection of Interstate 64 and Hurstbourne Lane.

Further details on other speakers and highlights of the 1974 KMA Annual Meeting will be carried in upcoming issues of *The Journal*.

Plans Should Be Made Now For Scientific Exhibits

Arnold C. Williams, M.D., Lexington, Chairman of the KMA Scientific Exhibits Committee, urges all physicians interested in presenting scientific exhibits at the 1974 KMA Annual Meeting to make their plans soon.

Application for space should be received by July 1, 1974 at the Headquarters Office. Exhibits need not be expensive or professionally constructed, but should have a good subject and be of teaching value.

This year's Annual Meeting will be held September 24-26 at the Bluegrass Convention Center. An application blank appeared in the April *Journal of KMA* on page 232. You may, however, obtain an application blank by writing the KMA Headquarters Office, Scientific Exhibits, 3532 Ephraim McDowell Drive, Louisville, Kentucky 40205.

KMA Public Relations Committee Seeks Physician Volunteers

The KMA Public Relations Committee will sponsor an exhibit at the 1974 Kentucky State Fair at which blood pressures will be taken with an automatic cuff and a small disk denoting blood pressure will be given to each individual for his personal record. Members of the Woman's Auxiliary to KMA who are registered nurses will be taking the blood pressures.

The Committee feels that the best public relations can be obtained by having a physician member of KMA present to chat briefly with individuals who have abnormal blood pressures. Members of the Committee have all volunteered to be available during undesirable four-hour periods. If any KMA member feels he can give four hours to the Association at the 1974 State Fair, August 15-24, it would be appreciated if he would contact the Headquarters Office and select a time which would be convenient.



Robert C. Long, M.D., (right) Louisville, after his election as President of the National Health Council, accepts the gavel of office from outgoing NHC President, Walter J. McNerney, (left) Chicago, President of Blue Cross Association. Elected at the NHC Annual Meeting in Boston on March 11, Doctor Long has been an AMA representative on the NHC Board since 1968.

AMA Lists 107 Kentucky Recipients For Physician's Recognition Award

The American Medical Association Physician's Recognition Award for 1972-73 was presented to 107 Kentucky physicians. First offered in 1969, the Physician's Recognition Award recognizes, encourages and supports physicians who participate regularly in continuing medical education. The Kentucky Medical Association is one of only three state medical associations whose annual meeting was approved for Category 1 for the 1973 Physician's Recognition Award. Listed below are the Kentucky physicians who received the award for 1972.

Richard A. Allnutt, Covington
Leticia C. Alojipan, Louisville
Mohammad Amin, Louisville
Richard L. Atkinson, Ft. Campbell
Maurice E. Bandy, Glasgow
James A. Baumgarten, Owensboro
J. Bradford Block, Frankfort
James C. Bobrow, Louisville
Orides Bonadio, Harlan
R. Barton Bridges, Hopkinsville
C. William Briscoe, Corbin
George F. Brockman, Greenville
Carl J. Brueggemann, Covington
John H. Burke, Lexington
William W. Bush, Covington
P. Raphael Caffrey, Lexington
Frank S. Cascio, Lexington
Jerry W. Conners, Highland Heights
William B. Cook, Prestonsburg
Guy C. Cunningham, Ashland
Stanley J. Cyran, Louisville
James R. Dade, Hopkinsville
Arthur T. Daus, Louisville
Harry O. Debandi, Madisonville
Agapito Del Rosario, Whitesburg
Robert W. Dettmer, Ft. Knox
Marcus L. Dillon, Lexington
Stephen G. Edelstein, Lexington
Francisco Elbl, Louisville
Will S. Foster, Louisville
Yen Jen Fuh, Lexington
George R. Geier, Ft. Campbell
George I. Goldstein, Ft. Knox
Joseph L. Goldstein, Louisville
Armond T. Gordon, Louisville
Allen E. Grimes, Lexington

Larry J. Hall, Elizabethtown
Ronald D. Hamilton, Lexington
Talmadge V. Hays, Pineville
Carl G. Hoffman, Newport
*Charles E. Hornaday, Owensboro
John P. Howard, Louisville
Van R. Jenkins, Lexington
William W. Joule, Louisville
Irving F. Kanner, Lexington
Ann P. Kasdan, Louisville
Morton L. Kasdan, Louisville
Arthur H. Keeney, Louisville
Mohammed I. Khan, Louisville
Seong Soo Kim, Henderson
Taiksoo A. Kim, Paducah
William H. Klompus, Madisonville
Ferris I. Larsen, Morganfield
Frank R. Lemon, Lexington
*Nathan Levene, Louisville
Champ Ligon, Lexington
Austin S. Litvak, Lexington
Thomas B. Logan, Hopkinsville
Tchuoc Poin Ly, Louisville
Khosrow Matini, Louisville
Mary H. May, Georgetown
Manoochehr Mazloomdoost, Louisville
R. G. McAllister, Midway
Edward W. McReynolds, Ft. Campbell
Ira P. Mersack, Lexington
Harold S. Moberly, Winchester
Tom D. Nichol, Louisville
Clem E. Nichols, Munfordville
W. Harold Nickell, Lexington
Robert C. Noble, Lexington
Robert L. Nold, Louisville
Andres C. Olaciregui, Louisville

Nick Olmos Lau, Ft. Knox
M. David Orrahood, Owensboro
William M. Parsley, Louisville
Philip E. Podruch, Louisville
Stephen H. Radinsky, Lexington
Garner E. Robinson, Ashland
George H. Rodman, Greenville
Robert J. Salisbury, Mt. Sterling
Na? H. Sandler, Lexington
Robert P. Schiavone, Louisville
James A. Schroer, Newport
Arthur F. Schultz, Somerset
Samuel R. Scott, Lexington
Frank D. Scutchfield, Morehead
Frank K. Sewell, Mt. Sterling
Charles E. Shields, Ft. Knox
Allen L. Sklar, Lexington
Clifton Smith, Lexington
Seung Seek Sohn, Madisonville
Curtis L. Songster, Louisville
Winfield Stryker, Paducah
Gerald E. Sullivan, Bowling Green
George R. Tanner, Ft. Thomas
Sam H. Traugher, Hopkinsville
Harry E. Voyles, Louisville
Thomas L. Wachtel, Corbin
Ronald E. Waldrige, Shelbyville
Paul M. Walstad, Harlan
William E. Yancey, Louisville
William R. Yates, Ft. Mitchell
Akhtar E. Yusufji, Henderson
Manoochehr Zia Borhan, Harlan
Nathan Zimmerman, Valley Station
Martin Zukof, Louisville
Walter H. Zukof, Louisville

*Deceased.



POSTGRADUATE OPPORTUNITIES



IN KENTUCKY

MAY

- 15-18 Annual Assembly, Kentucky Academy of Family Physicians, Ramada Inn/Bluegrass Convention Center, Louisville.
- 27-31 "Practical Therapeutics in Internal Medicine"*, University of Kentucky Medical Center, Co-sponsored by American College of Physicians, Lexington
- 28-30 International Symposium on Intestinal Absorption and Malabsorption,* University of Kentucky Medical Center; Registration: \$150; Lexington
- 30-31 Emergency Health Care Seminar, Ramada Inn/Bluegrass Convention Center, Louisville
- 31-June 1 Fourth Biennial Symposium, "Cancer in Women," and Annual Meeting of Kentucky Obstetrical and Gynecological Society, Galt House, Louisville

JUNE

- 1 Kentucky Society of Pathologists Annual Slide Seminar, Lake Barkley Resort Park, 12:30 p.m.—5 p.m.
- 13 "Patient/Public Relations Seminar for the Office Assistant," KMA-sponsored, Ramada Inn, Louisville
- 17-18 "Colposcopy and the Cytologically Suspect Uterine Cervix,*" University of Kentucky College of Medicine, Registration: \$250, Lexington Hilton Hotel, Lexington

JULY

- 17 "Patient/Public Relations Seminar for the Office Assistant," KMA-sponsored. Holiday Inn North, Lexington

SEPTEMBER

- 24-26 KMA Annual Meeting, Ramada Inn/Bluegrass Convention Center, Louisville

*For further information contact Ronald D. Hamilton, M.D., Director, Continuing Education, College of Medicine, University of Kentucky, Lexington 40506

**For further information contact Gerald D. Swim, Director, Office of Continuing Education, University of Louisville School of Medicine, Health Sciences Center, Louisville, Kentucky 40201

IN SURROUNDING STATES

JUNE

- 22-27 Annual Convention, American Medical Association, McCormick Place, Chicago

Pathologists to Meet June 1

The Kentucky Society of Pathologists will hold their Annual Slide Seminar at Lake Barkley Resort Park on June 1 beginning at 12:30 p.m. The seminar directed by Costan Berard, M.D. and Vincent DeVita, M.D. of the National Cancer Institute will deal with "Classification of Lymphomas: Implication for Therapy."

Registration, which is \$25, can be made by contacting Lynn L. Ogden, M.D. Jewish Hospital, Pathology, 217 East Chestnut Street, Louisville, Kentucky 40202.

Yoke Fellows at Shakertown, a branch of Yoke Fellows International (a nondenominational movement) has extended an invitation to all physicians of Kentucky to join in a one-day spiritual retreat on June 1 at Shakertown, Kentucky from 9 a.m. to 6 p.m. Reservations may be made through the Executive Director, Stephen S. Sebert, Route 4, Harrodsburg, Kentucky 40330. Phone (606) 734-7461.

M.D. Recruitment

Physician opportunities with HealthCare of Louisville, Inc., a developing prepaid group practice (H.M.O.). Board certified or qualified family physicians, internists, and pediatricians. Must be Kentucky licensed. Must be qualified for hospital staff appointment. Salary plus attractive fringe benefits depending upon qualifications and experience.

Direct inquiries to:

*HealthCare of Louisville, Inc.
Fincastle Building—Suite 419
Louisville, Kentucky 40202
583-4826*

After June 1, 774-5711

**All of these mammals, except one,
can synthesize vitamin C**



Woman (man) cannot.

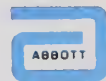
Human beings can neither synthesize vitamin C nor store most of the water soluble vitamins. They should be replenished continuously.

Normally, people accomplish this in their daily diet. But under conditions of illness, stress, in convalescence or following surgery, vitamin stores may be depleted or metabolic demands increased.

In such cases, Surbex-T may be indicated. Surbex-T makes it easy and convenient to restore the water-soluble vitamins. Each tablet provides 500 mg. of vitamin C plus high potency B-complex.

Where nutritional status must be preserved, Surbex-T can help restore what the body *cannot* effectively store.

403482



SURBEX-T[®] 500 mg. of Vitamin C with High Potency B-Complex
Restores what the body cannot effectively store



The Antacid Analogy



Indications: Pro-Banthine is effective as adjunctive therapy in the treatment of peptic ulcer. Dosage must be adjusted to the individual.

Contraindications: Glaucoma, obstructive disease of the gastrointestinal tract, obstructive uropathy, intestinal atony, toxic megacolon, hiatal hernia associated with reflux esophagitis, or unstable cardiovascular adjustment in acute hemorrhage.

Warnings: Patients with severe cardiac disease should be given this medication with caution.

Fever and possibly heat stroke may occur due to anhidrosis.

In theory a curare-like action may occur, with loss of voluntary muscle

control. For such patients prompt and continuing artificial respiration should be applied until the drug effect has been exhausted.

Diarrhea in an ileostomy patient may indicate obstruction, and this possibility should be considered before administering Pro-Banthine.

Precautions: Since varying degrees of urinary hesitancy may be encountered by elderly males with prostatic hypertrophy, such patients should be advised to micturate at the time of taking the medication.

Overdosage should be avoided in patients severely ill with colitis.

Adverse Reactions: Varying degrees of drying of salivary secretions

Therapeutic comparisons in peptic ulcer.

Acids have only one mode of action to relieve ulcer pain...

Pro-Banthine[®] has four propantheline bromide

Acids:

Antacids relieve ulcer pain by neutralizing gastric acid. This action is relatively short-lived and they have only one mode of action.

Banthine:

Pro-Banthine suppresses gastric acid secretion. The antisecretory properties of propantheline are well established. By effectively blocking vagotonic impulses Pro-Banthine suppresses gastric secretion to reduce both total and free acid.

Pro-Banthine helps relieve pain.

Pro-Banthine relieves ulcer pain by reducing gastric acid secretion and the motility and spasm of the gastrointestinal tract.

Pro-Banthine reduces acidity without subsequent acid rebound. The capacity of Pro-Banthine to reduce the secretion of total and free acid in the stomach has been demonstrated in scores of studies. None has demonstrated any significant evidence of acid rebound.

Pro-Banthine activity lasts about six hours. The effect of a single therapeutic dose (15 mg.) of Pro-Banthine lasts about six hours.* Pro-Banthine P.A.[®], the prolonged-acting form, is active from 8 to 12 hours. Thus Pro-Banthine may be used to suppress acid, spasm, and pain around the clock, even during the sleeping hours when antacids, to be effective, must be taken almost hourly.

*Innes, I. R., and Nickerson, M., in Goodman, L. S., and Gilman, A. (editors): The Pharmacological Basis of Therapeutics, ed. 4, New York, The Macmillan Company, 1970, p. 537.

Pro-Banthine complements and enhances the action of antacids.

SEARLE

Searle & Co.
San Juan, Puerto Rico 00936

Address medical inquiries to: G. D. Searle & Co.
Medical Department, Box 5110, Chicago, Ill. 60680

as well as mydriasis and blurred vision. In addition the following actions have been reported: nervousness, drowsiness, dizziness, headache, loss of the sense of taste, nausea, vomiting, constipation and allergic dermatitis.

Dosage and Administration: The recommended daily dosage for adult is one 15-mg. tablet with meals and two at bedtime. Subsequent adjustment to the patient's requirements and tolerance must be

based on clinical response. Pro-Banthine is supplied as tablets of 15 and 7.5 mg., as prolonged-release tablets of 30 mg. and, for parenteral use, as serum-type vials of 30 mg.

Some patients may require one tablet every eight hours. The contraindications and precautions applicable to Pro-Banthine 15 mg. should be observed.

How Supplied: Pro-Banthine is supplied as tablets of 15 and 7.5 mg., as prolonged-acting tablets of 30 mg. and, for parenteral use, as serum-type vials of 30 mg.

Pro-Banthine P.A.—Each tablet of Pro-Banthine P.A. (propantheline bromide) contains 30 mg. of the drug in the form of sustained-release or

Synthroid[®]

(sodium levothyroxine)

Supplied: **Tablets:** 0.025 mg., 0.05 mg., 0.1 mg., 0.15 mg., 0.2 mg., 0.3 mg., 0.5 mg., scored and color-coded in bottles of 100, 500, and 1000.

Injection: 500 mcg. lyophilized active ingredient and 10 mg. of Mannitol, U.S.P., in 10 ml. single-dose vial, with 5 ml. vial of Sodium Chloride Injection, U.S.P., as a diluent.

Synthroid-T₄



FLINT LABORATORIES
DIVISION OF TRAVENOL LABORATORIES, INC.
Deerfield, Illinois 60015



ANSWERS TO YOUR QUESTIONS ABOUT BLUE SHIELD

Q. What is the Blue Shield Reciprocity System?

A. *Reciprocity is a nationwide Blue Shield Claims processing system developed by all 72 Blue Shield Plans. The Reciprocity System will enable Kentucky Blue Shield to provide direct payment to Kentucky physicians for covered services rendered to eligible out-of-state Blue Shield members.*

Q. What advantage is the new Reciprocity System to Kentucky physicians?

A. *Kentucky physicians rendering services to out-of-state members enrolled in Reciprocity groups will be able to bill Kentucky Blue Shield direct on the familiar Physicians Service Report and will be paid direct by Kentucky Blue Shield. The program will be administered using the Usual, Customary and Reasonable Guidelines approved by the Kentucky Medical Association.*

Q. Are all Blue Shield members enrolled in Reciprocity groups?

A. *No. Only certain groups with Usual, Customary and Reasonable Blue Shield are eligible for participation. The Motors Account will add its 2.5mm members to the Reciprocity System effective June 1, 1974. Reciprocity enrollment nationally is expected to reach 10mm by January 1, 1975.*

Q. Will the Reciprocity System affect Kentucky physicians' payment for services rendered to Kentucky Blue Shield members?

A. *No. The only time Reciprocity will be in effect is when a physician renders a covered service to an eligible out-of-state member who has the special Reciprocity identification card.*

Q. How will the physician know if the out-of-state Blue Shield member is eligible for Reciprocity benefits?

A. *All "reciprocity eligible" Blue Shield members will be issued special identification cards bearing a red double-pointed arrow in the upper left corner indicating reciprocity.*

Q. Are there any special procedures to follow when billing a Reciprocity claim?

A. *Only one. Inside the red double-pointed arrow on the eligible members identification card will be a letter followed by three numerals. (The number inside the arrow varies by Blue Shield Plan.) When filing a Reciprocity claim the letter and numerals must be placed immediately preceding the member's certificate number in Block 1 on the Physicians Service Report. This will be Blue Shield's only indication that Reciprocity is involved in this claim.*

Q. What services are covered for a member of a Reciprocity group?

A. *Covered services for out-of-state Reciprocity members include: surgery, anesthesia, radiation therapy, in-hospital x-ray, lab and pathology, in-hospital medical care, and out-patient accident services including x-ray and lab examinations. It is important to note that maternity services are not covered under the Reciprocity system. All maternity claims at present should be sent to the member's home Blue Shield Plan.*

Q. How can the physician get more information regarding the new Reciprocity System?

A. *If you have any questions, please contact the Professional Relations Division, Kentucky Blue Shield, 3101 Bardstown Road, Louisville, Kentucky 40205.*



A plaque honoring George P. Archer, M.D. who died on July 12, 1973, was recently presented by the Kentucky Medical Association to the Highlands Regional Medical Center in Prestonsburg. Making the presentation on behalf of the Association were (left to right) Jerry E. Mahoney, KMA Director of Communications Division; and Ballard W. Cassady, M.D., Pikeville, Chairman of the KMA Board of Trustees. Edward Music, Chairman of Highlands Regional Medical Center, and Chalmer H. Frazier, administrator of the Center, accepted the plaque which will be placed in the lobby of the Medical Center.

Emergency Care Seminar Gets More CME Credit Approval

The 1974 Emergency Health Care Seminar, to be held May 30-31 at the Ramada Inn/Bluegrass Convention Center in Louisville, was recently approved for 11½ hours of AAFP prescribed credit and 1.0 continuing education units for the Kentucky Nurses Association. Previously, 13½ credit hours were approved for Category I of the AMA Physician's Recognition Award.

Sponsored by KMA, KNA, the Kentucky Hospital Association, and the Kentucky Chapter, American College of Emergency Physicians, the program will feature a simulated traffic accident and rescue demonstration and a workshop on cardiopulmonary resuscitation and respiratory distress syndrome.

Featured luncheon speakers for the two-day event will be Captain John M. Waters, Director of the Department of Public Safety in Jacksonville, and Teresa Romano, R.N., Operations Director of the Illinois Department of Public Health.

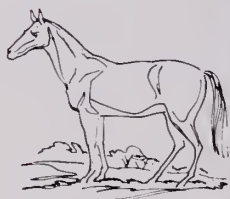
A \$10 registration fee for each day will be charged and registration should be made with the KMA Headquarters Office as soon as possible.

At Your Service in The Bluegrass State

In the state* that got its nickname from the dusty-blue blossoms of the grass around Lexington...



is represented by...



Larry Farmer



Lee Fuqua



John McKinney



Bill Nicol



Larry Plumlee



Jon Swanson

*For more information on the history of your state, write Professional Services, Marion Laboratories, Inc.

These men bring you ...

Health Services of the Ukraine

(Continued from page 285)

There are eight physician members of the 200-member Finnish Parliament. Medical experience of these physicians has been uniformly unfavorable, as they invariably act as politicians rather than physicians, and their loyalty is to the political party (including the Communist party) rather than to the profession.

NEWS ITEMS

James A. Baumgarten, M.D., Owensboro, was recently named a Fellow of the American College of Radiology at the College's 51st Annual Meeting in New Orleans.

George W. Pedigo, Jr., M.D., Louisville, was recently named to the American College of Physicians Board of Regents. Elected at the ACP Annual Session on April 4, Doctor Pedigo was one of eight physicians elected to the Board.

Emergency Medical Care

(Continued from page 272)

6. Committee on Ambulance Design Criteria. *Ambulance Design Criteria*. A report to the National Highway Safety Bureau of the Federal Highway Administration, U.S. Department of Transportation. June 30, 1969. Washington, D.C.: National Academy of Engineering, 1969; Washington, D.C.: U.S. Government Printing Office, 1970.

7. *Cardiopulmonary Resuscitation*. Statement by the Ad Hoc Committee on Cardiopulmonary Resuscitation of the Division of Medical Sciences, National Academy of Sciences—National Research Council. JAMA, 198: 372-379, 1966.

8. Emergency Medicine, Emergency Specialty, M.D., 16:9, p. 79, September, 1972.

9. Farrington, J.D. *The Seven Year War*.

10. Gordon, A.S., Ed. *Cardiopulmonary Resuscitation Conference Proceedings*. National Research Council, May 23, 1966. Washington, D.C.: National Academy of Sciences, National Academy of Engineering—National Research Council, 232, 1967.

11. Joint Commission on Accreditation of Hospitals. *Accreditation Manual for Hospitals*—December 1970. Hospital Accreditation Program. Chicago: Joint Commission on Accreditation of Hospitals, p. 152, 1971.

12. Duval, M.K.: *The Hidden Crisis in Health Care*. Delivered at the Second National Conference on Emergency Health Services, Bethesda, Md., December 3, 1971.

13. Prince, John W.: *A System of Comprehensive Medical Services in Wisconsin*.

14. Reducing Highway Slaughter, *Medical World News*, August 25, 1969.

15. Walters, J.M., Jr.: *The Efficient City Emergency Medical Service*, Speech delivered in Jacksonville, Florida, 1969.

**ts comfort
your prescription
nicotinic acid**

THE OPTIMAL-DOSE, 400-mg, timed-release NICO-400® (nicotinic acid) capsule provides • Controlled flushing for the desired effects without therapy-limiting side effects. • Convenient b.i.d. dosage that's less likely to be forgotten. • The economy of nicotinic acid medication.

For comfort wherever nicotinic acid is used

NICO-400®
(nicotinic acid) Plateau CAPS®

Description: Each capsule contains 400 mg of nicotinic acid in a special base that provides a prolonged systemic effect. **Indications:** NICO-400® is recommended for all disease states in which nicotinic acid has been used. These include conditions associated with deficient circulation and for use in the correction of nicotinic acid deficiencies. **Contraindications:** Individuals with a hypersensitivity to nicotinic acid, severe hypotension or hemorrhaging. **Warnings:** Use with caution in those patients with history of peptic ulcer, severe diabetes, impaired gall bladder or liver functions and in pregnant women. **Adverse Reactions:** Patients should be informed of the short-lived reactions experienced with nicotinic acid therapy: cutaneous flushing, a sensation of warmth, tingling and itching of the skin, increased gastrointestinal motility and sebaceous gland activity. **Dosage and Administration:** One capsule every 12 hours or as directed by physician. **Caution:** Federal law prohibits dispensing without prescription. **How Supplied:** Bottles of 100 capsules.

Another patient benefit product from

MARION
PHARMACEUTICAL DIVISION
LABORATORIES INC.
KANSAS CITY, MISSOURI 64137



Why is Gantanol[®] (sulfamethoxazole) basic therapy in nonobstructed urinary tract infections?

Before prescribing, please consult complete product information, a summary of which follows:

Indications: Acute, recurrent or chronic nonobstructed urinary tract infections (primarily pyelonephritis, pyelitis and cystitis) due to susceptible organisms. **Note:** Carefully coordinate *in vitro* sulfonamide sensitivity tests with bacteriologic and clinical response; add aminobenzoic acid to follow-up culture media. The increasing frequency of resistant organisms limits the usefulness of antibacterials including sulfonamides, especially in chronic or recurrent urinary tract infections. Measure sulfonamide blood levels as variations may occur; 20 mg/100 ml should be maximum total level.

Contraindications: Sulfonamide hypersensitivity; pregnancy at term and during nursing period; infants less than two months of age.

Warnings: Safety during pregnancy has not been established. Sulfonamides should not be used for group A beta-hemolytic strep-

tococcal infections and will not eradicate vent sequelae (rheumatic fever, glomerulonephritis, agranulocytosis, aplastic anemia and other dyscrasias have been reported and early clinical signs (throat, fever, pallor, purpura or jaundice) may indicate blood disorders. Frequent CBC and urinalysis with microscopic examination are recommended during sulfonamide therapy. Caution is advised in children under six with chronic renal disease.

Precautions: Use cautiously in patients with impaired hepatic function, severe allergy, bronchial asthma; in glucose phosphate dehydrogenase-deficient individuals in whom related hemolysis may occur. Maintain adequate fluid intake to prevent crystalluria and stone formation.

Adverse Reactions: Blood dyscrasias (agranulocytosis, aplastic anemia, thrombocytopenia, leukopenia, hemolytic ane-

Because it is considered a good choice...

- for efficacy in nonobstructed cystitis, pyelonephritis and pyelitis
- for control of susceptible *E. coli*, *Klebsiella-Aerobacter*, *Staph. aureus*, *Proteus mirabilis* and, less frequently, *Proteus vulgaris*
- for prompt antibacterial blood and urine levels in from 2 to 3 hours after initial 2-gram adult dose
- for economical around-the-clock coverage
- for maximum patient cooperation with easy-to-remember B.I.D. dosage

Basic Therapy

Gantanol[®]

(sulfamethoxazole)

Tablets/Suspension

(0.5 Gm) (0.5 Gm/teasp.)

hypoprothrombinemia and methemoglobinemia); *allergic* reactions (erythema multiforme, skin eruptions, epidermal necrolytic reactions, serum sickness, pruritus, exfoliative dermatitis, anaphylactoid reactions, periorbital edema, conjunctival and scleral edema, photosensitization, arthralgia and allergic myocarditis); *gastrointestinal reactions* (nausea, emesis, abdominal pains, hepatic dysfunction, diarrhea, anorexia, pancreatitis and stomatitis); *CNS reactions* (headache, peripheral neuritis, mental depression, convulsions, hallucinations, tinnitus, vertigo and insomnia); *miscellaneous reactions* (drug fever, chills, toxic nephrosis with oliguria and interstitial nephritis nodosa and L.E. phenomenon). Due to certain chemical similarities with some goitrogens, diuretics (acetazolamide, thiazides) and oral hypoglycemic agents, sulfonamides have caused rare instances of goiter production, diuresis and hypoglycemia as well as thyroid malignancies in rats following long-term administration. Cross-sensitivity with these agents may exist.

Dosage: Systemic sulfonamides are contraindicated in infants under 2 months of age (except adjunctively with pyrimethamine in congenital toxoplasmosis).

Usual adult dosage: 2 Gm (4 tabs or teasps.) initially, then 1 Gm *b.i.d.* or *t.i.d.* depending on severity of infection.

Usual child's dosage: 0.5 Gm (1 tab or teasps.)/20 lbs of body weight initially, then 0.25 Gm/20 lbs *b.i.d.* Maximum dose should not exceed 75 mg/kg/24 hrs.

Supplied: Tablets, 0.5 Gm sulfamethoxazole; Suspension, 0.5 Gm sulfamethoxazole/teaspoonful.



Roche Laboratories
Division of Hoffmann-La Roche Inc.
Nutley, N.J. 07110

What's on your patient's face...

may be more important than his chief complaint

Patient P.T.* seen on 3/29/67 shows typical lesions of moderately severe keratoses. Note residual scarring on ridge of nose from previous cryosurgical and electrosurgical procedures.



Patient P.T.* seen on 6/12/67, seven weeks after discontinuation of 5% FU cream. Reaction has subsided. Residual scarring not seen except that due to prior surgery. Inflammation has cleared and face is clear of keratotic lesions.

*Data on file,
Hoffmann-La Roche
Inc., Nutley, N.J



he lesions on his face
e solar/actinic—
-called "senile" keratoses...
nd they may be premalignant.

ar, actinic or senile keratoses

e lesions may be called by several names, but they
ly can be identified by the following characteris-
The typical lesion is flat or slightly elevated, of a
nish or reddish color, papular, dry, rough, adherent
sharply defined. They commonly occur as multiple
s, chiefly on the exposed portions of the skin.

quence of therapy— ctivity of response

several days of therapy with Efudex® (fluorouracil),
ema may begin to appear in the area of the lesions;
reaction usually reaches its height of unsightliness
discomfort within two weeks, declining after dis-
uation of therapy. This reaction occurs in affected
Since the response is so predictable, lesions that
respond should be biopsied.

ceptable results

ment with Efudex provides highly favorable cos-
results. Incidence of scarring is low. This is par-
ticularly important with multiple facial lesions. Efudex
d be applied with care near the eyes, nose and mouth.

Before prescribing, please consult complete product
information, a summary of which follows:

Indications: Multiple actinic or solar keratoses.

Contraindications: Patients with known hypersensitivity
to any of its components.

Warnings: If occlusive dressing used, may increase in-
flammatory reactions in adjacent normal skin. Avoid pro-
longed exposure to ultraviolet rays. Safe use in pregnancy
not established.

Precautions: If applied with fingers, wash hands immedi-
ately. Apply with care near eyes, nose and mouth. Lesion
failing to respond or recurring should be biopsied.

Adverse Reactions: Local—pain, pruritus, hyperpigmen-
tation and burning at application site most frequent; also
dermatitis, scarring, soreness and tenderness. Also re-
ported—insomnia, stomatitis, suppuration, scaling, swell-
ing, irritability, medicinal taste, photosensitivity,
lacrimation, leukocytosis, thrombocytopenia, toxic
granulation and eosinophilia.

Dosage and Administration: Apply sufficient quantity to
cover lesion twice daily with nonmetal applicator or suit-
able glove. Usual duration of therapy is 2 to 4 weeks.

How Supplied: Solution, 10-ml drop dispensers—contain-
ing 2% or 5% fluorouracil on a weight/weight basis,
compounded with propylene glycol, tris(hydroxymethyl)-
aminomethane, hydroxypropyl cellulose, parabens (methyl
and propyl) and disodium edetate.

**Cream, 25-Gm tubes—containing 5% fluorouracil in a
vanishing cream base consisting of white petrolatum,
stearyl alcohol, propylene glycol, polysorbate 60 and
parabens (methyl and propyl).**



Roche Laboratories
Division of Hoffmann-La Roche Inc.
Nutley, N.J. 07110

his patient's lesions were resolved with

Efudex®
fluorouracil/Roche®

5% cream/solution...a Roche exclusive



EYES RIGHT! ...to SOUTHERN OPTICAL

LOUISVILLE Southern Optical Bldg. — 640 S. 4th
Contact Lenses — 640 S. 4th
Medical Towers Bldg., Floyd & Gray
Doctors Office Bldg., Liberty at Floyd
Medical Arts Bldg., 1169 Eastern Parkway
Professional Bldg. East, 3101 Breckinridge Lane
Medix Bldg. — Adj. S.S. Mary & Elizabeth Hosp.

ST. MATTHEWS 313 Wallace Center and 108 McArthur Drive

NEW ALBANY Professional Arts Bldg., 1919 State Street

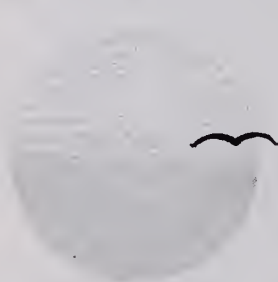
BOWLING GREEN 524 East Main Street

OWENSBORO Doctors Bldg., 1001 Center Street



*Southern
Optical*

CHARGE ACCOUNTS
INVITED
BankAmericard
Master Charge



SKYWAY ENTERPRISES, INC.

Executive Air Charter Service

Home Office 269-1413/ Flight Operations 255-6923
Lexington's Bluegrass Field/ Air Associates Terminal

Before prescribing, please consult complete product information, a summary of which follows:

Indications: Relief of anxiety and tension occurring alone or accompanying various disease states.

Contraindications: Patients with known hypersensitivity to the drug.

Warnings: Caution patients about possible combined effects with alcohol and other CNS depressants. As with all sedating drugs, caution patients against hazardous occupations requiring complete mental alertness (e.g., operating machinery, driving). Though physical and psychological dependence have rarely been reported on recommended doses, use caution in administering to addiction-prone individuals or those who might increase dosage; withdrawal symptoms (including convulsions), following discontinuation of the drug and similar to those seen with barbiturates, have been reported. Use of any drug in pregnancy, lactation, or in women of childbearing age requires that its potential benefits be weighed against its possible hazards.

Precautions: In the elderly and debilitated, and in children over six, limit to smallest effective dosage (initially 10 mg or less per day) to preclude ataxia or sedation, increasing gradually as needed and tolerated. Not recommended in children under six. Though generally recommended, if combination therapy with other psychotropics seems indicated, carefully consider individual pharmacologic effects, particularly in use of potent drugs such as MAO inhibitors or phenothiazines. Observe usual precautions in presence of impaired renal or hepatic function. Paradoxical reactions (e.g., excitement, stimulation and rage) have been reported in psychiatric patients and hyperactive aggressive children. Employ usual precautions in treatment of anxiety states with evidence of impending depression; suicidal tendencies may be present and protective measures necessary. Variable effects on blood coagulation have been reported very rarely in patients receiving the drug and oral anticoagulants; causal relationship has not been established clinically.

Adverse Reactions: Drowsiness, ataxia and confusion may occur, espe-

cially in the elderly and debilitated. These are reversible in most instances by proper dosage adjustment, but are also occasionally observed at the lower dosage ranges. In a few instances syncope has been reported. Also encountered are isolated instances of skin eruptions, edema, minor menstrual irregularities, nausea and constipation, extrapyramidal symptoms, increased and decreased libido—all infrequent and generally controlled with dosage reduction; changes in EEG patterns (low-voltage fast activity) may appear during and after treatment; blood dyscrasias (including agranulocytosis), jaundice and hepatic dysfunction have been reported occasionally, making periodic blood counts and liver function tests

advisable during protracted therapy.

Usual Daily Dosage: Individualize for maximum beneficial effects. *Oral—Adults:* Mild and moderate anxiety and tension, 5 or 10 mg *t.i.d.* or *q.i.d.*; severe states, 20 or 25 mg *t.i.d.* or *q.i.d.* *Geriatric patients:* 5 mg *b.i.d.* to *q.i.d.* (See Precautions.)

Supplied: Librium® (chlordiazepoxide HCl) Capsules, 5 mg, 10 mg and 25 mg—bottles of 100 and 500; Tel-E-Dose® packages of 100. Libritabs® (chlordiazepoxide) Tablets, 5 mg, 10 mg and 25 mg—bottles of 100 and 500. With respect to clinical activity, capsules and tablets are indistinguishable.



Roche Laboratories
Division of Hoffmann-La Roche Inc
Nutley, N.J. 07110

to help reduce clinically significant anxiety and
thereby help improve patient receptivity

Librium® up to 100 mg daily in
severe anxiety
(chlordiazepoxide HCl)

Please see following page.



Symptom of excessive anxiety:

The patient may have difficulty in accepting medical counsel.

Clinical experience has shown that some unduly anxious patients may tend to deny or minimize their illness and therefore resist seeking

or following medical advice. Through its antianxiety action, adjunctive Librium (chlordiazepoxide HCl) can often calm the emotionally tense pa-

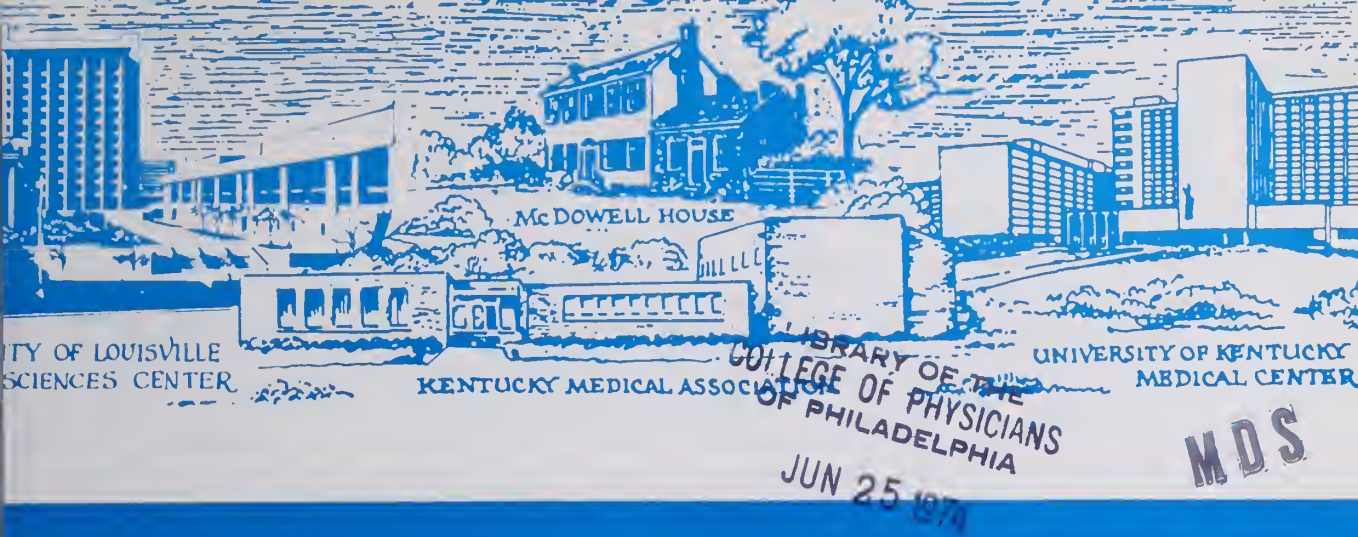
tient, thereby encouraging physician rapport and, on occasion, making it easier for the patient to accept medical counsel.

Please see reverse side
for summary of product information.

for relief of excessive anxiety

Librium® 10 mg capsule
(chlordiazepoxide HCl)

ROCHE



The Journal of The KENTUCKY Medical Association

3 April 1974—Tornado

Ronald Naser, Jr., M.D. and Walter Cole, Jr., M.D. 319

Crohn's Disease of the Stomach, Ileum and Colon

Song Kim, M.D., William Bowers, Jr., M.D. and Paul Walstad, M.D. 322

Diagnosis and Management of Chronic Lymphocytic Leukemia

Philip DeSimone, M.D. 325

Should Economic Factors Contribute to Medical Therapeutic Decisions?

Hiram Polk, Jr., M.D. and E. Truman Mays, M.D. 334

Complete Contents on Page 311

1974 KMA ANNUAL MEETING

September 24-26

Ramada Inn/Bluegrass Convention Center

Louisville

Both after



Predominant
psychoneurotic
anxiety

Associated
depressive
symptoms

Before prescribing, please consult complete product information, a summary of which follows:

Indications: Tension and anxiety states; somatic complaints which are concomitants of emotional factors; psychoneurotic states manifested by tension, anxiety, apprehension, fatigue, depressive symptoms or agitation; symptomatic relief of acute agitation, tremor, delirium tremens and hallucinosis due to acute alcohol withdrawal; adjunctively in skeletal muscle spasm due to reflex spasm to local pathology, spasticity caused by upper motor

neuron disorders, athetosis, stiff-man syndrome, convulsive disorders (not for sole therapy).

Contraindicated: Known hypersensitivity to the drug. Children under 6 months of age. Acute narrow angle glaucoma; may be used in patients with open angle glaucoma who are receiving appropriate therapy.

Warnings: Not of value in psychotic patients. Caution against hazardous occupations requiring complete mental alertness. When used adjunctively in convulsive dis-

orders, possibility of increase in frequency and/or severity of grand mal seizures require increased dosage of standard convulsant medication; abrupt withdrawal may be associated with temporary increase in frequency and/or severity of seizures. Advise against simultaneous ingestion of alcohol and other CNS depressants. Withdrawal symptoms (similar to those with barbiturates and alcohol) occurred following abrupt discontinuation (convulsions, tremor, abdominal cramps, vomiting and sweating) in addiction-prone individuals under c

Respond to one

According to her major
ptoms, she is a psychoneu-
rotic patient with severe
anxiety. But according to the
description she gives of her
symptoms, part of the problem
is a condition like depression.
Because her problem,
although primarily one of ex-
cessive anxiety, is often accom-
panied by depressive symptom-
atology. Valium (diazepam)
can provide relief for both—as
excessive anxiety is re-
lieved, the depressive symp-
toms associated with it are also
relieved.

There are other advan-
tages in using Valium for the
management of psychoneu-
rotic anxiety with secondary
depressive symptoms: the
therapeutic effect of
Valium is pronounced and
lasting. This means that im-
provement is usually apparent
in the patient within a few
days rather than in a week or

two, although it may take
longer in some patients. In ad-
dition, Valium (diazepam) is
generally well tolerated; as
with most CNS-acting agents,
caution patients against haz-
ardous occupations requiring
complete mental alertness.

Also, because the psycho-
neurotic patient's symptoms
are often intensified at bed-
time, Valium can offer an addi-
tional benefit. An *h.s.* dose
added to the *b.i.d.* or *t.i.d.*
treatment regimen can relieve
the excessive anxiety and asso-
ciated depressive symptoms
and thus encourage a more
restful night's sleep.

For further information
on this subject, the following
references are provided:

1. Henry BW, *et al*: *Dis Nerv Syst* 30:675-679, Oct 1969.
2. Hollister LE, *et al*: *Arch Gen Psychiatry* 24:273-278, Mar 1971.
3. Claghorn J: *Psychosomatics* 11:438-441, Sept-Oct 1970.

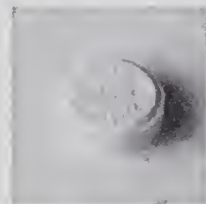
tolerance because of their predisposi-
tion to habituation and dependence. In
pregnancy, lactation or women of child-
bearing age, weigh potential benefit
against possible hazard.

Precautions: If combined with other psy-
chotropic or anticonvulsants, consider
the individual pharmacology of agents em-
ployed; drugs such as phenothiazines,
barbiturates, MAO inhibitors
and antidepressants may potentiate
Valium's action. Usual precautions indicated in
patients severely depressed, or with latent
depression, or with suicidal tendencies.

Observe usual precautions in impaired
renal or hepatic function. Limit dosage to
smallest effective amount in elderly and
debilitated to preclude ataxia or over-
sedation.

Side Effects: Drowsiness, confusion, diplo-
pia, hypotension, changes in libido, nausea,
fatigue, depression, dysarthria, jaundice,
skin rash, ataxia, constipation, headache,
incontinence, changes in salivation,
slurred speech, tremor, vertigo, urinary
retention, blurred vision. Paradoxical re-
actions such as acute hyperexcited states,
anxiety, hallucinations, increased muscle

spasticity, insomnia, rage, sleep disturb-
ances, stimulation have been reported;
should these occur, discontinue drug. Iso-
lated reports of neutropenia, jaundice;
periodic blood counts and liver function
tests advisable during long-term therapy.



Valium[®] (diazepam)

2-mg, 5-mg, 10-mg tablets

in psychoneurotic
anxiety states
with associated
depressive symptoms



Roche Laboratories
Division of Hoffmann-La Roche Inc.
Nutley, New Jersey 07110

The Rx that says "Relax"



BUTISOL Sodium provides highly predictable sedation; minor dosage adjustments are usually all that's needed to produce the desired degree of sedation. (With 3 dosages and 4 strengths to make adjustments easy.)

BUTISOL Sodium offers prompt, smooth, relatively non-cumulative action: begins to work within 30 minutes because of its intermediate rate of metabolism, generally neither a "roller-coaster" nor a "hangover" effect.

BUTISOL Sodium is remarkably well tolerated: a 30-year safety record assures you that there is little of unexpected reactions.

BUTISOL Sodium saves your patients money: costs less than half as much as most commonly prescribed sedative tranquilizers.*

These are four good reasons for prescribing BUTISOL Sodium for the many patients who need to have the prescription just a little slower. Its gentle daytime sedative action is all that's needed to help the usually well-adjusted patient cope with temporary stress.

*Based on surveys of average daily prescription costs.

Butisol ^{III}SO
(SODIUM BUTABARBITAL)

Contraindications: Sensitivity or idiosyncrasy to barbiturates; history of manifest or latent porphyria or marked liver impairment; respiratory distress with dyspnea or obstruction; history of addiction to sedative/hypnotic drugs; uncontrolled pain, to avoid because of possible excitement.

Precautions: Exercise caution in: moderate to severe hepatic disease; anticoagulant therapy, because of possible increased metabolism of anticoagulants; withdrawal in drug dependence or the taking of excessive doses over a long period, to avoid withdrawal symptoms; elderly patients, to avoid possible marked excitement or depression; use with other CNS depressants, because of combined effects.

Adverse Reactions: Slight hangover, drowsiness, lethargy, headache, skin eruptions, nausea and vomiting, hypersensitivity reactions (especially with asthma, urticaria, angioneurotic edema, or similar conditions).

Usual Adult Dosage: For daytime sedation, 15 mg. to 30 mg. t.i.d. For hypnosis, 50 mg. to 100 mg.

Available as: Tablets, 15 mg., 30 mg., 50 mg., 100 mg.; Elixir, 30 mg. (alcohol 7%). BUTICAPS® [Capsules BUTISOL SODIUM (sodium butabarbital)] 15 mg., 30 mg., 50 mg., 100 mg.

McNEIL

McNeil Laboratories, Inc., Fort Washington, Pa. 19034

© McNeil 1971

EDITOR

Walter I. Hume, Jr., M.D.

ASSOCIATE EDITOR

Henry B. Asmon, M.D.

ASSISTANT EDITOR

A. Evon Overstreet, M.D.

EXECUTIVE EDITOR

Robert G. Cax

MANAGING EDITOR

Jerry E. Mohoney

ASSISTANT MANAGING EDITOR

Dione Moxey

DEPARTMENTAL EDITORS

Charles C. Smith, Jr., M.D., Scientific

John W. Greene, Jr., M.D., Maternal
Mortality

BOARD OF CONSULTANTS
ON SCIENTIFIC ARTICLES

Term Expires July 1, 1976

Gehrig M. Rabinsan, M.D.

Mark S. Sexter, M.D.

Thomas E. Boath, M.D.

Patrick L. Jasper, M.D.

Oscar W. Thompson, M.D.

Stephen C. Schindler, M.D.

Van R. Jenkins, M.D.

Jahn W. Miller, M.D.

Term Expires July 1, 1975

Robert E. Arnold, M.D.

Robert A. Holl, M.D.

Chrisman S. Jackson, Jr., M.D.

Lafayette G. Owen, M.D.

Anne Richman, M.D.

Ruel T. Routt, M.D.

Frank G. Siman, M.D.

Leslie Van Nastrand, M.D.

Term Expires July 1, 1974

David S. Nightingale, M.D.

Dennis B. Penn, M.D.

Andrieus J. Dzenitis, M.D.

Joseph G. Whelon, Jr., M.D.

Canrod H. Janes, M.D.

Peter C. Campbell, Jr., M.D.

William E. Jackson, M.D.

Edgar W. Woltrip, M.D.

Published at 3532 Ephroim McDowell Drive,
Louisville, Ky. 40205
Phone (Area Code 502) 452-6324

Subscription \$10 (Members \$5)

Single Copy \$1

Second-class postage paid at Louisville, Kentucky.
Acceptance for mailing at special rates postage
provided in Section 1103, act of Oct. 3, 1917,
authorized May 25, 1920.

Journal of The K E N T U C K Y Medical Association

Contents

SCIENTIFIC ARTICLES

3 April 1974—Tornado

Ronald Naser, Jr., M.D. and Walter Cole, M.D. . . . 319

Crohn's Disease of the Stomach, Ileum and Colon

Song Kim, M.D., William Bowers, Jr., M.D.
and Paul Walstad, M.D. 322

Diagnosis and Management of Chronic Lymphocytic Leukemia

Philip DeSimone, M.D. 325

Sideroblastic Anemias (Grand Rounds)

Yong Liu, M.D. 329

SPECIAL ARTICLES

Should Economic Factors Contribute to Medical Therapeutic Decisions?

Hiram Polk, Jr., M.D. and E. Truman Mays, M.D. 334

An Economic Consideration of Portal-Systemic Anastomoses

James Middleton, Ph.D. 336

. . . And Who Shall Measure?

R. W. Knapp, M.D. 339

EDITORIALS

Priorities 344

Fixing Periods 344

ORGANIZATION

1974 Annual Meeting To Feature Outstanding Speakers,
Informative Topics, September 24-26 345

Nominations for KMA Awards Has July 15 Deadline 345

Two Trustee Districts Hold Meetings During June 346

KMA Physicians Host Dinner For Kentucky Congressmen 346

KMA Public Relations Committee Seeks Physician Volunteers 346

Digest of Proceedings, Board of Trustees, April 11, 1974 348

REGULAR FEATURES

President's Page 313 Maternal Mortality 314

Postgraduate Opportunities . . 350

KENTUCKY MEDICAL ASSOCIATION

BOARD OF TRUSTEES — 1973-1974

Officers

President	FRED C. RAINEY 912 Woodland Dr., Elizabethtown 42701 (502) 765-4147 .1974
President-Elect	HOYT D. GARDNER 508 Watterson City Bldg., Louisville 40218 (502) 452-2684 .1974
Immediate Past President	LEE C. HESS 7211 U. S. 42, Florence 41042 (606) 371-1153 .....1974
Vice-President	GABE A. PAYNE 1610 S. Main St., Hopkinsville 42240 (502) 885-8445 ...1974
Secretary	S. RANDOLPH SCHEEN 1163 Medical Arts Bldg., Louisville 40217 (502) 451-1661 .1975
Treasurer	KEITH P. SMITH Medical Arts Bldg., Corbin 40701 (606) 528-3211 .....1975
Speaker, House of Delegates ...	RICHARD F. GREATHOUSE 5 Triangle Center, Louisville 40220 (502) 458-3219 .....1974
Vice-Speaker	CARL COOPER, JR. Bedford 40006 (502) 255-3282 .....1974
Chairman, Board of Trustees ...	BALLARD W. CASSADY Pikeville Medical Bldg., Pikeville 41501 (606) 437-6698 ..1974
Vice-Chairman	PAUL J. PARKS 1109 State St., Bowling Green 42101 (502) 781-5111 ....1974

Delegates to the A.M.A.

J. THOS. GIANNINI, Suite 3E, Suburban Medical Plaza, Louisville (502) 897-2555	Jan. 1973-Dec. 1974
CHAS. G. BRYANT, (Alt.) 3357 Medical Arts Bldg., Louisville (502) 452-1558	Jan. 1973-Dec. 1974
JOHN C. QUERTERMOUS, 205 S. 8th St., Murray (502) 753-5161	Jan. 1974-Dec. 1975
WILLIAM W. HALL, (Alt.) Mayfair Square, Owensboro (502) 684-6255 ...	Jan. 1974-Dec. 1975
DAVID B. STEVENS, 333 Waller Ave., Lexington (606) 254-8008	Jan. 1974-Dec. 1975
THOMAS L. HEAVERN, (Alt.) 2435 Alexandria, Highland Hgts. (606) 441-7600	Jan. 1974-Dec. 1975

Trustees

1st	W. EUGENE SLOAN, 2320 Broadway, Paducah 42001 (502) 443-4581 .....1974
2nd	CHARLES C. KISSINGER, Atkinson Park, Henderson 42420 (502) 826-6271 .....1976
3rd	RALPH L. CASH, 210 West Main St., Princeton 42445 (502) 365-2037 .....1974
4th	W. BRUCE HAMILTON, 4th & Buckman, Shepherdsville 40165 (502) 543-6362 ...1974
5th	EDWARD N. MAXWELL, St. Joseph Infirmary, Louisville 40217 (502) 636-7461 ..1975
6th	PAUL J. PARKS, 1109 State St., Bowling Green 42101 (502) 781-5111 .....1975
7th	JOHN P. STEWART, 220 Steele St., Frankfort 40601 (502) 227-4718 .....1976
8th	CARL J. BRUEGGEMANN, 325 W. 19th St., Covington 41014 (606) 291-4768 ..1975
9th	JAMES L. FERRELL, Bourbon Medical Ctr., Paris 40361 (606) 987-2200 .....1976
10th	DAVID A. HULL, 2368 Nicholasville Rd., Lexington 40503 (606) 277-5711 ....1976
11th	R. EUGENE BOWLING, 527 W. Main, Richmond 40475 (606) 623-3754 .....1975
12th	ROBERT N. McLEOD, JR., 500 Bourne Ave., Somerset 42501 (606) 678-8155 ....1974
13th	J. WESLEY JOHNSON, 2301 Lexington Ave., Ashland 41101 (606) 325-1151 ....1976
14th	BALLARD W. CASSADY, Pikeville Med. Bldg., Pikeville 41501 (606) 437-6698 ..1974
15th	HAROLD L. BUSHEY, 406 Knox St., Box 770, Barbourville 40906 (606) 546-3024 1975

BUYERS GUIDE

JUNE BUYERS GUIDE FOR JOURNAL OF KMA 1974

Abbott Laboratories	353	Eli Lilly and Company	318
Berea Hospital	315	McNeil Laboratories, Inc.	310
Blue Cross and Blue Shield of Kentucky	360	Medical Protective Company	328
Burroughs Wellcome Company	347	Pharmaceutical Manufacturers Association	356-357
Dorsey Laboratories	351	Roche Laboratories	308-309, 354-355, 358-359, 361-362
General Leasing Corporation	316	J. B. Roerig and Company	316-317
HealthCare of Louisville	350	Schmid Laboratories, Inc.	342-343
Hospital Corporation of America	342	Skyway Enterprises	352
A. P. Lee Agency	349	Southern Optical Company	352

MESSAGE FROM THE PRESIDENT



PSRO-NHI—"What's Next?" HMOs

OVER the past three years there has been much philosophical discussion regarding alternate delivery systems, and in particular, Health Maintenance Organizations (HMOs), which in summary resulted in "a whole lot of talk and very little action."

BUT THE GAME CHANGED when President Nixon signed into law on December 29, 1973, the Health Maintenance Organization Act of 1973 (P.L. 93-222). The law is designed to stimulate interest by consumers and providers in the Health Maintenance Organization concept and to make health care under this form available and accessible. The Health Maintenance Organization theory brings together a comprehensive range of health care services in a single organization which would be responsible for providing such services to its subscribers for a fixed monthly or annual prepayment.

Although the final regulations have not been distributed, a review of the law reflects a tremendous impact on health care in the areas of both financing and delivery. The law establishes criteria:

- by which an organization may become a "qualified" Health Maintenance Organization;
- for financial assistance to "qualified" HMOs from the federal government;
- that employers will be required to offer their employees a "qualified" program as an alternative to their present approach.

What impact can we expect the law to have on our current mode of practice? Does an HMO present a threat to private practice? Will physicians be involved in the development of HMOs? Does the law provide for just closed panel practice or can it accommodate the individual practice setting? Will it provide for fee-for-service reimbursement? What incentives does the law provide for physicians?

In light of the new law, the many questions it raises, and the fact that three HMO-type programs already exist in Kentucky, it behooves the individual physician and the Association to review our entire position regarding Health Maintenance Organizations. It is a concept that demands that we be informed in the interest of the public and our profession.

J. THOMAS GIANNINI, M.D.
SENIOR DELEGATE TO THE AMA

This is the second in a series of articles written at the request of KMA President Fred C. Rainey, M.D.



MATERNAL MORTALITY



From the Files of the KMA Maternal Mortality Study Committee

—Edited by John W. Greene, Jr., M.D.

14-71—This 32-year-old, single black woman, was admitted on November 2, 1971, approximately 10 p.m. to the hospital. The patient was mentally retarded and unable to give any history. A sister with whom she lived, noticed she had had an enlarging abdominal mass for approximately two months. Her last menstrual period was two months ago but prior to this time they had been normal and regular. The patient had no vaginal bleeding, no nausea or vomiting, no fever or chills to the knowledge of the sister. However, the patient had been complaining of lower back pain, dysuria, urgency, and frequency for about three weeks.

Examination on admission revealed the patient to be an extremely obese and somewhat mentally retarded but alert Negro female who did not appear to be in acute distress on admission. The blood pressure was 130/90, temperature 101, and pulse 100. The patient had severe bilateral non-pitting edema of both extremities which the sister stated has always been present. The abdomen was extremely obese. There was no tenderness. There was minimal bilateral CVA tenderness. A pelvic mass extending to the xyphoid was filling the abdomen and pelvis; it was smooth, firm, regular, and nontender. Fetal parts could not be outlined and no fetal heart tones were heard. Pelvic examination revealed normal external genitalia; there was no discharge, bleeding or mucus. The cervix was soft, the os was closed and there was no bleeding. The uterus could not be outlined but the previously mentioned mass could possibly be uterine in origin. Likewise, there were no definite adnexal masses or tenderness. The impression on admission was abdominal and pelvic mass, possibly uterine fibroids, possibly ovarian cyst. A urinary tract infection was diagnosed. The CBC on admission showed the hemoglobin to be approximately 13.3; the hematocrit was 39%; WBC was 13,000 with a normal differential. Urinalysis revealed a 1+ protein, a normal specific gravity; a microscopic revealed 15-20 WBC's and 1-2 RBC's with moderate bacteria. The patient was started on intramuscular polycillin for her urinary tract infection and was to be worked up further the next morning. The patient was in no acute distress at this time. She had an uneventful night. The following morning her temperature was 100.6 and she was complaining of some vague back pain. She was still alert and in no acute distress. A flat film of the

abdomen was ordered for the morning but because the water had been cut off to the hospital this film was not obtained. The patient voiced no complaint until approximately 2 p.m. when she was complaining of some lower abdominal pain and more severe back pain. She was examined at this time and was noted to be in active labor with a completely dilated cervix, a head presenting at -1 station in the L.O.T. position. There was foul amniotic fluid leaking from the cervix. The patient was transferred to the obstetrical service and observed. Cultures of the amniotic fluid were taken, and the patient was started on intravenous polycillin. The temperature at this time was 101. The patient did not appear to be in any great distress. After a short observation period it was noted that the head was not making any progress in descent and the patient was sent for pelvimetry. Fetogram revealed the baby to be probably in excess of 8 lbs, with borderline measurements of the inlet. It was observed by three separate examiners that fetal heart tones were heard at a rate of 140 per minute. It was decided to take the patient to the operating room for a trial of mid-forceps which, if unsuccessful immediate Cesarean section could be performed. By this time the fetal vertex was approximately 0 to almost +1 station with a contraction. It was stated by the staff consultant that should a section be necessary, spinal anesthesia should be administered. The patient was taken to the operating room and given a spinal anesthesia consisting of 10 mg of Pontocaine and 1 cc of D 10W. The patient was placed in the dorsal lithotomy position and was prepped. The blood pressure immediately post-spinal was 100/80, the pulse was about 90. Immediately postspinal, attempts were made to hear fetal heart tones, but they were not heard. Kielland forceps were applied to the head in the L.O.T. position and rotated with ease to the anterior.

During this application of the forceps, the patient was complaining of increasing difficulty in breathing and therefore she was intubated and ventilated with 100% oxygen. The blood pressure at this time was 80/60 and the pulse rate was 70. Upon traction of the forceps, it was felt that too much traction was being applied and that the infant could not be delivered vaginally. Attempts at vaginal delivery were stopped. The blood pressure at this point was 80/40 and the pulse rate was 60. This failed to respond to ephedrine intravenously and to pushing the uterus

to the left. The patient was placed in the supine position and hurriedly prepped. When the skin incision was made the blood pressure was unobtainable and the pulse was 60 on carotid palpation. This failed to respond to intravenous epinephrine. A low transverse cervical segment section was performed with the delivery of a stillborn male infant weighing approximately 8½ lbs. with a few macerated areas. The amniotic fluid, placenta, and infant were very foul smelling. At the time the infant was delivered, the anesthesiologist reported that the blood pressure was unobtainable and there was no pulse. Through the abdominal incision, however, a strong aortic pulse of a rate of 40 per minute was felt and the patient was then given an intracardiac injection of epinephrine. She responded to this by a very rapid rise in the pulse rate. The tachycardia was treated with intravenous lidocaine. Blood pressure was slowly increased by neosynephrine drip and the procedure was finished. At the end of the procedure the patient's blood pressure was 100/80 with a slow neosynephrine drip required to maintain it. Pulse rate was 120, there was no spontaneous respiration and the patient was unresponsive. At the end of the procedure the pupils were constricted and did react to light. Urine output was good. In the recovery room the patient was placed on a respirator, given intravenous polycillin and intramuscular Kanamycin. At 4 a.m. the patient's temperature was 106 rectally. At this time her blood was cultured; she was given 1 gm of Solu-medrol intravenously. Previously she had been given 1 gm immediately postop and 1 gm during the procedure. The patient was put on an ice blanket and given rectal aspirin for the temperature. A subclavian catheter was inserted and the central venous pressure was 15 cm of water. A

cervical swab was taken at this time for a gram stain and culture as well as the culture which had been taken from the placenta. The gram stain showed negative rots—gram positive coli and few gram negative diplococci.

At 8 a.m. the temperature was 107.4 rectally; the patient was treated with another ice blanket over her and another dose of rectal aspirin. An electroencephalogram revealed the presence of moderate cortical activity. The patient's temperature slowly dropped and remained so over the next several days to subnormal. A neosynephrine drip was required to maintain her blood pressure and she remained unresponsive, requiring a respirator. On November 9, the blood pressure was 90 with a rapid neosynephrine drip. Urinary output had dropped to almost zero, she was totally unresponsive and without any spontaneous respirations. An electroencephalogram revealed the absence of cortical activity. The respirator was discontinued and the patient expired at 9:39 a.m.

At postmortem examination gross finding revealed encephalomalacia, focal irritative gastritis, shock kidney, clinical obesity, and a tracheostomy which had been inserted after 48 hours of intratracheal intubation.

Comment

The Committee classified this as a direct obstetrical death. A factor contributing to her demise was the anesthesia. It is not noted in the protocol as to how long she sat up after the 10 mg of Pontocaine was administered. However, 10 mg of Pontocaine is a sizable dosage to use in obstetrical patients. It was felt that this woman probably had a total spinal, that there was inadequate treatment of the shock, resulting in subsequent problems that she developed.

GENERAL SURGEON

Board certified/eligible. Office space (for thriving practice) provided in 110 bed Hospital in excellent community. Please reply to **David E. Burgio, Administrator, Berea Hospital, Inc., Berea, Kentucky 40403**

(606) 986-3151

KMA Annual Meeting

September 24-26

**Ramada Inn/Bluegrass Convention Center
Louisville**

Make Plans Now

General LEASING

Doctor! This is Your Own Plan

ENDORSED BY THE

**Kentucky Medical
Association**

for the leasing of

*cars — all makes & models,
Medical, Surgical & Laboratory
Equipment
and Office Furnishings.*

**13 YEARS EXPERIENCE
IN THIS FIELD**

**General Leasing
CORPORATION**

121 Bauer Ave. St. Matthews

(502) 896-0383

PRESCRIBING INFORMATION **Antiminth (pyrantel pamoate) Oral Suspension**

Actions. Antiminth (pyrantel pamoate) has demonstrated anthelmintic activity against *Enterobius vermicularis* (pinworm) and *Ascaris lumbricoides* (roundworm). The anthelmintic action is probably due to the neuromuscular blocking property of the drug.

Antiminth is partially absorbed after an oral dose. Plasma levels of unchanged drug are low. Peak levels (0.05-0.13 µg/ml.) are reached in 1-2 hours. Quantities greater than 50% of administered drug are excreted in feces as the unchanged form, whereas only 7% or less of the dose is found in urine as the unchanged form of the drug and its metabolites.

Indications. For the treatment of ascariasis (roundworm infection) and enterobiasis (pinworm infection).

Warnings. Usage in Pregnancy: Reproduction studies have been performed in animals and there was no evidence of propensity for harm to the fetus. The relevance to the human is not known.

There is no experience in pregnant women who have received this drug.

Precautions. Minor transient elevations of SGOT have occurred in a small percentage of patients. Therefore, this drug should be used with caution in patients with pre-existing liver dysfunction.

Adverse Reactions. The most frequently encountered adverse reactions are related to the gastrointestinal system.

Gastrointestinal and hepatic reactions: anorexia, nausea, vomiting, gastralgia, abdominal cramps, diarrhea and tenesmus, transient elevation of SGOT.

CNS reactions: headache, dizziness, drowsiness, and insomnia. Skin reactions: rashes.

Dosage and Administration. Children and Adults: Antiminth Oral Suspension (50 mg. of pyrantel base/ml.) should be administered in a single dose of 11 mg. of pyrantel base per kg. of body weight (or 5 mg./lb.; maximum total dose 1 gram). This corresponds to a simplified dosage regimen of 1 cc. of Antiminth per 1 lb. of body weight. (One teaspoonful = 5 cc.)

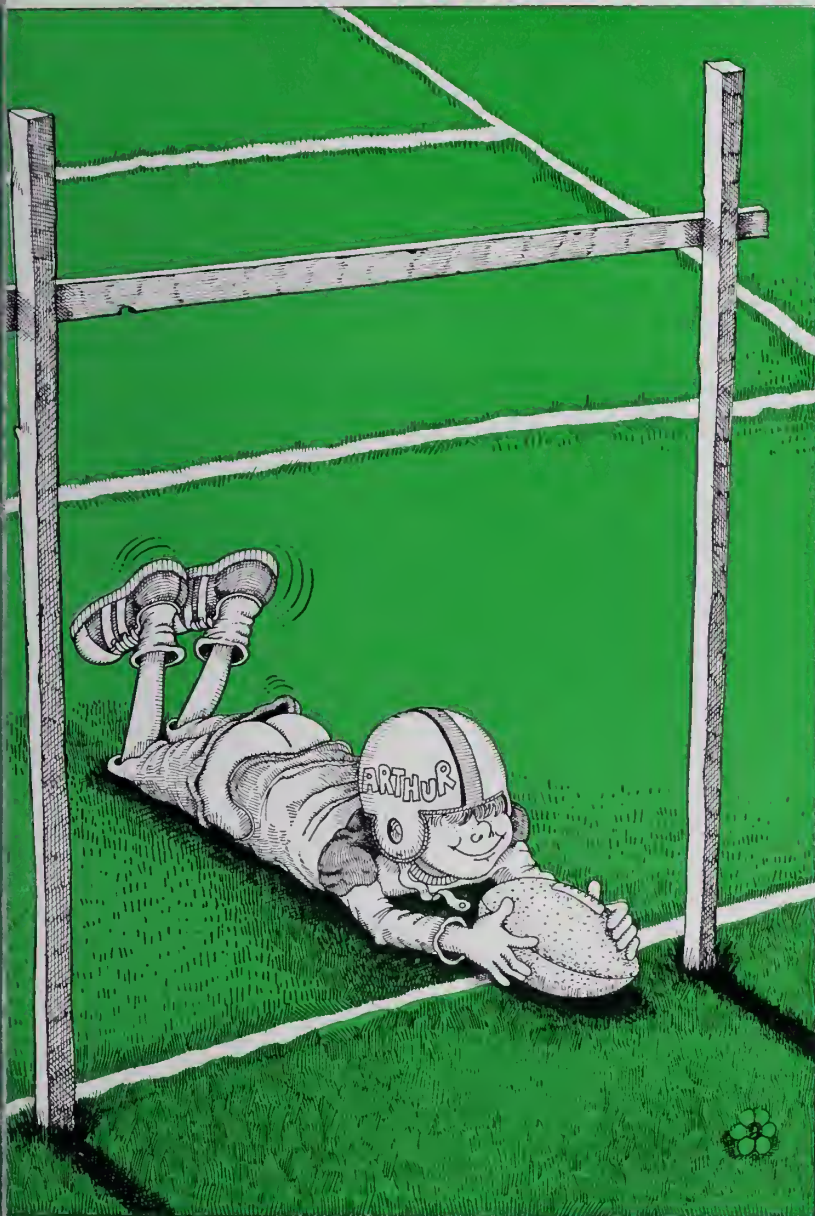
Antiminth (pyrantel pamoate) Oral Suspension may be administered without regard to ingestion of food or time of day; and purging is not necessary prior to, during, or after therapy. It may be taken with milk or fruit juices. Because of limited data on repeated doses, no recommendations can be made.

How Supplied. Antiminth is available as a pleasant tasting caramel flavored suspension which contains the equivalent of 50 mg. pyrantel base per ml., supplied in 60 cc. bottles.

ROERIG 

A division of Pfizer Pharmaceuticals
New York, New York 10017

WORMS BLITZED



A single dose of Antiminth (1 cc. per 10 lbs. of body weight, 1 tsp./50 lbs. — maximum dose, 4 tsp.=20 cc.) offers highly effective control of *both* pinworms and roundworms.

Antiminth has been shown to be extremely well tolerated by children and adults alike in clinical studies.* Pleasantly caramel-flavored, it is non-staining to teeth and oral mucosa on ingestion... doesn't stain stools, linen or clothing.

One prescription can economically treat the entire family.

ROERIG **Pfizer**

A division of Pfizer Pharmaceuticals
New York, New York 10017

**Pinworms, roundworms controlled
with a single, non-staining dose of**

ANTIMINTH[®]
(pyrantel pamoate)

equivalent to 50 mg pyrantel/ml.
ORAL SUSPENSION

Kefzol[®]

cefazolin sodium

Ampoules, equivalent to 1 Gm. of cefazolin



Additional information available
to the profession on request.
Eli Lilly and Company
Indianapolis, Indiana 46206
400380

The JOURNAL *of the* Kentucky Medical Association

ISSUED MONTHLY UNDER THE DIRECTION OF THE BOARD OF TRUSTEES

VOLUME 72

JUNE 1974

No. 6

3 April 1974—Tornado

RONALD O. NASER, JR., M.D. AND WALTER A. COLE, JR., M.D.
Brandenburg, Kentucky

This is being written primarily to share our medical experiences during the immediate aftermath period, which followed the tornado of April 3, 1974. The tornado struck our community of Brandenburg and the surrounding areas of Meade County, Kentucky at 4:07 p.m. leaving in its path and wake marked property devastation and destruction, multiple severe personal injuries and death.

We hope that our experiences and some of our thoughts may be of interest and benefit to other physicians, located in small rural communities with limited medical facilities, who may sometime be presented with similar mass casualty situations. We shall not discuss the many anecdotes, sad, tragic and humorous, but will leave them to professional journalists and others.

Brandenburg is located in Meade County, 42 miles west of Louisville, on the Ohio River and approximately 15 miles southwest of Fort Knox. It has two practicing physicians, Ronald O. Naser, Jr., M.D. and Walter A. Cole, Jr., M.D., and one medical clinic, which by 4:10 p.m., April 3, 1974, was without electricity, phone communication, and inaccessible by motor vehicle because of the fallen and uprooted trees and debris obstructing the streets.

Almost immediately after the storm, this one medical facility was swamped by seriously injured persons, ranging in age from a three and one half month old infant to octogenarians. They were transported by being carried in arms, on make-shift blanket pole litters, old army cots, wooden doors, which had been blown from buildings, boards, human-hand

chairs, lawn patio chairs, chaise lounges, and by foot. After the streets had been temporarily cleared, other casualties were brought in open pickup trucks and vans.

The injuries were mainly multiple, the result of severe trauma, caused by collapsing buildings and flying debris. They included open chest wounds, multiple fractures, dislocations, deep face, head, and other soft tissue lacerations, head injuries, spine injuries, abdomen and chest crushing injuries, heart attacks, and emotional and psychological shock.

The medical treatment was directed toward life-sustaining emergency measures only and no definitive treatment was attempted. Within one half hour the two local physicians were supplemented by the arrival of an Army Medical Officer, Captain Gary Klipple, M.D., Chief of Emergency Room Services, Ireland Army Hospital, and his medics. They were flown in via helicopter from Fort Knox, and they brought with them additional medical supplies and intravenous solution. Later a dentist, Dr. R. B. Shacklette, Vine Grove, arrived and assisted.

The casualties were examined in the offices, examining rooms, the hallway, the waiting room, outside The Clinic on truck beds, and on the parking lot pavement. The vital status was evaluated and determined, blood pressures checked, airways established, marked bleeding controlled, wounds dressed and fractures splinted with regular or improvised splints, medication given, and intravenous solution started as indicated. Most patients were labeled with head or wrist tapes, covered with

blankets and moved to the waiting room to await the arrival of transportation.

The dead were placed on the x-ray table and x-ray room floor and subsequently transferred to the drugstore below and later moved to the temporary morgue at the Brandenburg Elementary School.

No shortage of nursing personnel was experienced, as apparently all nursing personnel in the immediate locale came to The Clinic and offered their assistance. Later in the evening some nurses were thanked and sent to other aid stations. As indicated a nurse or aide was assigned to patients to assist in cleaning wounds, applying dressings and starting intravenous solution. When necessary, nurses would accompany the patients to the ambulances and to hospitals or to the helicopter pad for air evacuation.

The first ambulances arrived about one hour after the tornado had struck. The most seriously injured were transported to the helicopter pad located about one-half mile away, from which they were air evacuated to Ireland Army

Hospital, Fort Knox. The less seriously injured were transported by ambulance to the hospital at Fort Knox and Elizabethtown, Kentucky. The walking injured were moved by van and ambulance as were several of the injured elderly, who might have been adversely affected by a helicopter flight.

Emergency lighting was provided by the use of a camper-bus with an auxiliary gasoline generator using an extension cord. Battery-operated emergency lights also were borrowed from the local chemical plant.

Ambulance loading and directing of traffic were done by a friend who was an employee of the chemical plant. He also assisted the local Methodist minister in directing the casualty flow within the building and in the surrounding parking lot area.

By 8:30 p.m., all the initially injured had been processed and transported to Fort Knox Ireland Army Hospital, Elizabethtown Hardin Memorial Hospital, or to a Louisville hospital for definitive treatment, surgery, and for further care. By midnight the Army had guards



Aerial view of tornado stricken Brandenburg, Kentucky, April 4, 1974. Photo by Donn Wimmer, The Hancock Clarion, Hawesville, Kentucky.

stationed around The Clinic and other disaster struck areas. Emergency medical services were transferred to the James R. Allen School, where the Army maintained emergency facilities with lights, communications, adequate staff, and supplies. The acute traumatic medical emergency was over.

Sixty-eight seriously injured patients had been treated at The Clinic by three physicians, one dentist, nurses, and aides. Forty-eight were evacuated and subsequently hospitalized; two deaths occurred and three were DOA.

Thirty people were killed and 180 were injured of whom 60 were hospitalized as the direct result of the tornado of April 3, 1974. One injured person died at Ireland Army Hospital, Fort Knox on April 9, from injuries sustained in the tornado bringing the death toll to 31.

After reviewing those hours from 4:10 p.m., to midnight, we have drawn some conclusions and offer some suggestions for your consideration, which include:

1. A good transistor radio should be available and on during known possible weather emergencies.

2. The treatment of mass multiple injuries necessitated giving only life-sustaining treatment, excluding any attempt at definite treat-

ment at the local level.

3. Outside physician assistance was of great benefit because it was oriented to the emergency casualty treatment concept.

4. The outside assistance, the Army medical personnel, MD's, Medics, ambulance crews, helicopter pilots were needed, arrived and were promptly utilized. This assistance was greatly appreciated.

5. The concept of helicopter air evacuation was tried, tested, and proved successful.

6. Volunteer nurses and nurses-aides are available in small communities and are willing and efficient help.

7. Phone and electrical service cannot be counted on during severe catastrophic emergencies and planning should be directed toward having standby two-way radio communication available and standby battery-operated portable electrical lighting available and in working order.

8. Most small medical facilities do not have sufficient emergency supplies set aside, especially blankets, intravenous solution, and splints. We were fortunate in being supplemented with Army supplies.

9. Have emergency mass casualty plans with interval practice drills (we did not) and pray that you never need to initiate them.

Manuscript Memos

Manuscripts should be submitted in duplicate to The Journal of KMA, an original copy and one carbon, and typed with double spacing. Maximum length of an article should not exceed 4500 words; the Board of Consultants on Scientific Articles prefers that they be briefer than this when possible.

In submitting a manuscript, the author is requested to include a concise summary, not to exceed 35 words, to be used as a sub-title when the article is published in The Journal. The purpose of the summary is to create additional interest and encourage greater readership.

Footnotes and bibliographies should conform to the style of the Index Medicus. This requires in the order given name of author, title of article, name of periodical, with volume, page, month—day of month if weekly—and year. The Journal of the KMA does not assume responsibility for the accuracy of references used with scientific articles.

All scientific material appearing in The Journal is reviewed by the Board of Consultants on Scientific Articles. The editors may use up to six illustrations with the essayist bearing the cost of all over three one-column halftones.

Arrangements for reprints of an article should be made directly with the publisher of The Journal, Gibbs-Inman Printing Company, 817 W. Market St., Louisville, Ky.

The bylaws of the Kentucky Medical Association provide that all scientific discussions and papers read before the KMA Annual Meeting shall be referred to the KMA Journal for consideration for publication. The bylaws further state that the editor or the associate editor may accept or reject these papers as it appears advisable and return them to the author if not considered suitable for publication.

Please mail your scientific articles to The Journal of the Kentucky Medical Association, 3532 Ephraim McDowell Drive, Louisville, Kentucky 40205.

Crohn's Disease of the Stomach, Ileum and Colon†

SONG K. KIM, M.D., WILLIAM E. BOWERS, JR., M.D. AND
PAUL M. WALSTEAD, M.D.*

Harlan, Kentucky

A patient had antral obstruction from Crohn's disease of the stomach. In the overall care total parenteral alimentation was of benefit. When gastric outlet obstruction develops by-pass procedure appears to be the preferred treatment.

SINCE Crohn's¹ classical report in 1932 on regional ileitis there have, of late, appeared other reports²⁻²³ concerning the involvement of scattered areas of the gastrointestinal tract by a similar pathology. Recently Johnson²³ reviewed 33 cases of Crohn's disease of the stomach. Other recent reports²⁰⁻²² of 17 similar cases attest to the increasing recognition of this disease. Because of the uncommon incidence of regional enteritis in combination with stomach and colon involvement it was felt of worth to present a patient with such an affliction.

Report of A Case

A 67-year-old white female was admitted to Harlan Appalachian Regional Hospital on January 25, 1973, complaining of abdominal pains, vomiting, diarrhea, and a 31.8 kg (70 lb.) weight loss since 1970. Since 1953 she had had a known duodenal ulcer. In 1956 an upper gastrointestinal series at this hospital demonstrated a deformed duodenal cap with a 4 mm ulceration but with no delay in gastric emptying. In 1959 the duodenal ulcer was redemonstrated, in addition to a 40% retention of barium in the stomach after one hour. Barium enema studies showed normal colon and terminal ileum patterns. From 1956 until 1970

this patient received medical treatment here for duodenal ulcer and rheumatoid arthritis. From 1970, however, until this admission the patient had been treated elsewhere for duodenal ulcer, including a pyloroplasty and vagotomy procedure.

On admission the patient seemed chronically ill and emaciated. Except for slight tenderness to palpation in the epigastrium there were no other abnormal physical findings.

Laboratory data revealed the following values: hemoglobin 11.8 gm/100 ml, hematocrit 36%, total protein 5.4 gm/100 ml, albumin 2.2 gm/100 ml, globulin 3.2 gm/100 ml, serum iron 12 mcg/100 ml (normal, 65 mcg/100 ml to 75 mcg/100 ml), serum iron-binding



FIG 1 Gastric retention with outlet obstruction due to narrowed, rigid antrum with decreased peristalsis.

†From the Department of Surgery, Harlan Appalachian Regional Hospital, Harlan

*Reprint requests to Doctor Walstad, Daniel Boone Clinic, Martins Fork Road, Harlan, Kentucky 40831.



FIG 2 Twelve-hour delayed film showing cobblestone pattern of the antrum.

capacity 186 mcg/100 ml (normal, 250 mcg/100 ml to 410 mcg/100 ml). The following tests gave normal values: serum amylase, serum lipase, serum bicarbonate, calcium, chloride, phosphorus, potassium, sodium, creatinine, blood urea nitrogen, and serum serotonin.

There was no free acid in the stomach both before and after stimulation with betazole hydrochloride (Histalog). Similar results were obtained with the Hollander test.

Upper gastrointestinal series showed the antrum to be non-pliable and narrowed and associated with gastric retention. (Figure 1) A delayed x-ray film revealed a cobblestone appearance to the gastric mucosa. (Figure 2) Barium enema study showed a large, redundant colon with a cobblestone-like mucosal pattern. (Figure 3) There was spasticity of the ileum but its lumen was patent. Sigmoidoscopic examination revealed no abnormalities. Biopsies of the rectal wall were histologically normal.

Findings were felt to be compatible with the diagnosis of Crohn's disease. Because of the gastric outlet obstruction and the increasing

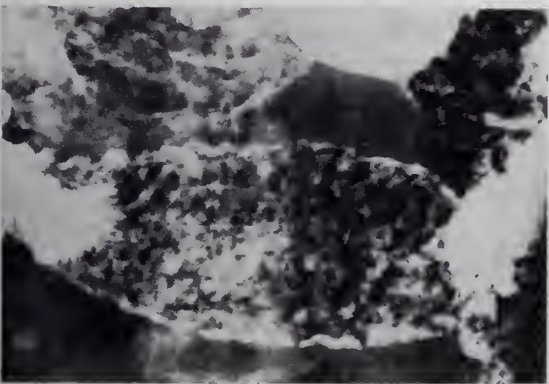


FIG 3 Radiological study of the transverse colon demonstrating cobblestone appearance.

inability of the patient to maintain herself in proper nutritional state, an operation was deemed necessary. Preoperative preparations involved use of total parenteral alimentation (TPA),²⁴ adrenocorticotrophic hormone (ACTH), and nasogastric suction. At operation the stomach wall was markedly edematous and thickened. To a lesser degree similar findings existed in the ileum; even though its lumen was patent. The ascending and transverse colon were much distended and engorged. Histological examination of a gastric wall biopsy compatible with Crohn's disease demonstrated chronic granulomatous inflammation with giant cells throughout, especially in the submucosal layer. Subtotal gastrectomy with Billroth II anastomosis was done. Postoperative recovery was delayed because of abdominal distention and the slow return of normal peristalsis. TPA was necessary for six weeks postoperatively, as well as ACTH with gradual reduction in the dosage. The patient was unable to tolerate salicylazosulfapyridine.



FIG 4 Small bowel series demonstrating mechanical distention of the distal ileum.

She was discharged from the hospital on the 54th postoperative day, being able to tolerate a regular diet quite well. However, after five weeks the patient was readmitted because of complaints of abdominal pains and vomiting. Radiological studies of the small bowel showed mechanical obstruction at the distal ileum. (Figure 4) At operation the distal 7 cm of ileum was found to be obstructed by inflammatory thickening of the bowel wall. A by-pass procedure was necessary. The patient did well postoperatively and was discharged in one week. The past six months the patient's health has improved. She has gained 6.3 kg (14 lb) in weight.

Comments

In Crohn's disease the involvement, also, of the stomach and duodenum varies from about one to three per cent.^{15,17} Reviewing the English literature Johnson found 33 cases with sole confinement to the stomach in 12 (36%).²³ In the remaining 21 cases other areas as the esophagus (one case), duodenum, jejunum, ileum, and colon were involved. Ages ranged from 9 to 59 years. Sixty-four per cent of the patients were males. The usual symptoms in order of decreasing frequency were: abdominal pains, weight loss, vomiting, diarrhea, and hematemesis.

Characteristic x-ray findings after barium studies in Crohn's disease reveal rigidity and narrowing of the gastric antrum.¹⁸ Also peristalsis is diminished and variable degrees of gastric retention are seen.

In most cases the presence of significant outlet obstruction has required such operative procedures as gastroenterostomy,^{2,21} with or without vagotomy, or partial or total gastrectomy.¹¹ Short term results following operation have been quite satisfactory.²² As yet there are few reports regarding long term results. The value of vagotomy has still to be determined.²¹

Acknowledgement

Roentgenograms were taken and interpreted by Paul O. Wells, M.D. and Truman D. Simmons, M.D., Department of Radiology.

References

1. Crohn, B.B., Ginzburg, L., and Oppenheimer, G.D.: Regional Ileitis, A Pathologic and Clinical Entity. *JAMA* 99:1323-1328 (Oct. 15) 1932.
2. Comfort, M.W., Weber, H.H., Baggenstoss, A.H. and Kiely, W.F.: Non-specific Granulomatous Inflammation of Stomach and Duodenum; Its Relation to Regional Enteritis. *Am. J. Med. Sci.* 220:616-632, 1950.
3. Martin, F.R.R., and Carr, R.J.: Crohn's Disease Involving the Stomach. A Report on Two Cases. *Brit. Med. J.* 1:700-703, 1953.
4. Heffernon, E.W., and Kepkay, P.H.: Segmental Esophagitis, Gastritis, and Enteritis. *Gastroenterology* 26:83-88, 1954.
5. Richman, A.R., Zeifer, H.D., Winkelstein, A., Kirschner, P.A., and Steinhardt, R.D.: Chronic Non-specific Granulomatous Inflammation of the Stomach, Duodenum and Intestine. *Gastroenterology* 29:358-369 (Sept.) 1955.
6. Miller, P.B., Sandweiss, D.J., and Shwachman, H.: Non-specific Granulomatous Inflammation of Gastrointestinal Tract. *N. Engl. J. Med.* 255:501-504, 1956.
7. Goldgraber, M.D., Kirsner, J.B. and Raskin, H.F.: Non-specific Granulomatous Disease of the Stomach. *Arch. Intern. Med.* 102:10-24, 1958.
8. Pryse-Davies, J.: Gastroduodenal Crohn's Disease. *J. Clin. Path.* 17:90-94, 1964.
9. Law, S.W., Searle, N.B., Barton, H.L., and Erickson, E.E.: Regional Enteritis of the Duodenum. *Arch. Surg.* 89:562-569 (Sept) 1964.
10. Lockhart-Mummery, H.E. and Morson, B.C.: Crohn's Disease of the Large Intestine. *Gut* 5:493-509 (Dec.) 1964.
11. Kune, G.A., and Fullerton, J.: Crohn's Disease of the Stomach. *Postgrad. Med.* 41:100-104, 1965.
12. Roberts, S.M., and Hamilton, W.W.: Regional Enteritis of the Duodenum. *Radiology* 86:881-885 (April) 1966.
13. Marshak, R.H., Lindner, A.E. and Janowitz, H.P.: Granulomatous Ileocolitis. *Gut* 7:258-264, 1966.
14. Johnson, O.A., Hoskins, D.W., Todd, J., and Thorbjarnarson, B.: Crohn's Disease of the Stomach. *Gastroenterology* 50:571-577, 1966.
15. Wilder, W.M., and Dafis, W.D., Jr.: Duodenal Enteritis. *South M. J.* 59:884-888, 1966.
16. Jones, G.W., Jr., Dooley, R., and Schoenfield, L.J.: Regional Enteritis with Involvement of the Duodenum. *Gastroenterology* 51:1018-1022 (Dec.) 1966.
17. Kusakcioglu, O., and Norton, R.A.: Granulomatous Duodenitis, Clubbed Digits and Psoriasis. Report of a Case. *Lahey Clin. Found. Bull.* 16:191-193, 1967.
18. Hawk, W.A., Turnbull, R.B., Jr., and Farmer, R.G.: Regional Enteritis of the Colon. Distinctive Features of the Entity. *JAMA* 201:738-746 (Sept. 4) 1967.
19. Cohen, W.N.: Gastric Involvement in Crohn's Disease. *Am. J. Roentgenol. Radium Ther. Nucl. Med.* 101:425-430 (Oct.) 1967.
20. Fielding, J.F., Toye, D.K.M., Beton, D.C., and Cooke, W.T.: Crohn's Disease of the Stomach and Duodenum. *Gut* 11:1001-1006 (Dec.) 1970.
21. Burgess, J.N., Legge, M.B., and Judd, E.S.: Surgical Treatment of Regional Enteritis of the Stomach and Duodenum. *Surg. Gynec. Obstet.* 132:628-630 (April) 1971.
22. Wise, L., Kyriakos, M., McCown, A., and Ballinger, W.F.: Crohn's Disease of the Duodenum. A Report and Analysis of Eleven New Cases. *Amer. J. Surg.* 121:184-194 (Feb) 1971.
23. Johnson, F.W. and Delaney, J.P.: Regional Enteritis Involving the Stomach. *Arch. Surg.* 105:434-437 (Sept.) 1972.
24. Dudrick, S.J., Wilmore, D.W., Vars, H.M., and Rhoads, J.E. Total Nutrition with Growth, Development and Positive Nitrogen Balance. *Surgery* 64:134-142 (July) 1968.

Diagnosis and Management of Chronic Lymphocytic Leukemia

PHILIP A. DESIMONE, M.D.*

Lexington, Kentucky

The clinical features and treatment of chronic lymphocytic leukemia are presented herein for the practicing physician.

CHRONIC lymphocytic leukemia (CLL) is the most prevalent type of leukemia in the United States,¹ affecting a population group with a mean age of 66 years at the time of diagnosis and an average life expectancy of four to six years after diagnosis.² Therefore, CLL will occasionally be encountered by most practicing physicians. For this reason a brief review of the clinical features, complications, and treatment of CLL would seem worthwhile.

The diagnosis of CLL is based upon a careful physical examination and complete blood count. There is an unexplained absolute increase in the number of small mature appearing lymphocytes, usually above 15,000/cu mm and typically accompanied by painless generalized enlargement of lymph nodes and an increase in size of the liver and spleen. Generally, the patient feels well. A lymph node biopsy is not helpful and will usually be read as malignant lymphoma, lymphocytic type. Bone marrow examination is not necessary in the usual case and will simply show increased numbers of mature lymphocytes. There are several diseases that may resemble CLL. Examples of these are a leukemoid reaction secondary to widespread tuberculosis and an acute viral infection with viremia. Patients with disseminated tuberculosis may have an increased absolute lymphocyte count, but they are generally ill with weight loss, malaise, and little generalized lymphoid enlargement. If tuberculosis must be ruled out, sputum cultures and/or chest x-ray may be necessary. Bone marrow examination in patients with disseminated tuberculosis will usually reveal granulomata, and a positive cul-

ture for *Mycobacterium tuberculosis*. In a viral illness, there may be generalized lymphoid enlargement but the absolute lymphocyte count will only be 3000-4000/cu mm. The lymphocytes are not the small mature type but they will be "atypical" with large amounts of "lacy" cytoplasm and large indented nucleus with occasional nucleoli.

CLL has an extremely broad range of signs and symptoms and is often divided into two types, "benign" and "aggressive". In its most benign form, CLL may be manifest only by an increased number of mature lymphocytes in the peripheral blood for many years. This "benign" type does not require specific treatment but should be followed with occasional office visits (every four to six months) to watch for the appearance of complications. The "aggressive" form of CLL has a decreased life expectancy when compared to benign, because it is in this group that the complications of CLL occur. The following types of complications, if present, are of importance in predicting whether a patient will have an "aggressive" course at time of initial diagnosis or when a "benign" case may become aggressive. It is at this point that specific therapy may be instituted.

Complications

1. Constitutional symptoms, such as fever, weight loss, night sweats, pruritus and fatigue are often the first evidence of aggressive disease.

2. The growth of lymph nodes in the mediastinum can give rise to a superior vena caval syndrome. Bronchial obstruction may occur with recurrent pneumonia and persistent non-productive cough. Retroperitoneal lymphadenopathy results in venous stasis of the legs with resultant phlebitis and pulmonary embolism.

3. Anemia when present should be fully evaluated. A hypochromic microcytic anemia must be assumed to be iron deficiency and not secondary to the leukemic process, until proven otherwise. Unless this is assumed a resectable

*From the Division of Hematology and Oncology, University of Kentucky Medical Center, Lexington

carcinoma of the gastrointestinal tract will be missed in the age group affected with CLL. The anemia of CLL is usually hypochromic normocytic in type and is usually associated with thrombocytopenia. This reflects bone marrow "crowding" by lymphocytic infiltration. Therefore on a bone marrow examination, one will find a decrease in normal marrow elements. A second more serious type of anemia is an autoimmune hemolytic anemia. In fact, approximately 35% of patients with autoimmune hemolytic anemia have CLL as the underlying cause.³ This anemia is normochromic and normocytic with a markedly elevated reticulocyte count and a positive direct Coombs test. This type of anemia demands the use of steroids in conjunction with treatment of the underlying leukemia. Hypersplenism is the third cause of anemia and is frequently associated with an enlarged spleen, neutropenia, and thrombocytopenia.

4. A total white count of greater than 100,000/cu mm is usually followed by anemia and thrombocytopenia, because of marrow crowding. Such an elevated white count is a good indication to start specific therapy.

5. In CLL, fever is much more frequently secondary to bacterial infection than to the disease process itself. The sites particularly prone to infection are lungs, urinary tract, and skin. Septicemias are frequent. Causative organisms commonly are pneumococci, staphylococci, pseudomonas, and klebsiella. The incidence of bizarre fungal infections and tuberculosis is very low. The reason for the increased rate of infection is the presence of hypogammaglobulinemia, which in most studies is seen in approximately 40% of the patients.⁴ Chemotherapy will not improve the hypogammaglobulinemia.

6. Lymphocytes proliferate slowly in CLL so the serum uric acid usually is only slightly elevated. Problems with hyperuricemia occur if treatment is started on an aggressive scale. This treatment causes a rapid lysis of cells with secondary liberation of uric acid. One such instance at our institution resulted in a rapid rise of uric acid to 67 mg% in one week. The patient developed renal failure, but had a complete recovery after a lengthy hospital stay. To prevent such a complication one must administer allopurinol, and serum uric acid levels

should be monitored in all patients being treated with chemotherapy, whatever the type.

It is difficult to decide when to begin treatment of a patient with CLL. The following can be used as indications to begin treatment. The appearance of anemia, thrombocytopenia, neutropenia, a WBC of over 100,000/cu mm, marked lymphadenopathy or splenomegaly. The selection of type of treatment is much simpler, because it is directed toward a specific complication.

Local radiation has a greater therapeutic to toxic ratio than systemic chemotherapy in CLL. Local radiotherapy should be the conventional treatment of choice to relieve obstruction or compression caused by enlarged lymph nodes or spleen. Examples of the above are massive mediastinal or retroperitoneal lymphadenopathy.

Alkylating agents are the treatment of choice for systemic therapy. We generally use chlorambucil but cyclophosphamide is just as effective. Cyclophosphamide however, has several drawbacks compared to chlorambucil: (1) It is expensive. (2) Almost all the patients have alopecia to some degree. (3) Toxic metabolites are excreted in the urine, therefore, hemorrhagic cystitis may occur and be life threatening, especially in patients with low platelet counts.

The initial dose of chlorambucil is usually 6-12 mg/day, and at this dose range 70% of the patients will have a fall in WBC, 50% will have a decrease in size of lymph nodes, and 25% will have a reduction in size of spleen.⁵ The dosage is then halved as the WBC halves itself. When the WBC reaches 15,000-25,000/cu mm (usually four to eight weeks), chlorambucil may be continued as daily maintenance of 2 mg per day, or stopped until there is another indication to re-employ it. In two separate studies there was no difference in survival when continual was compared to intermittent therapy.^{2,6} One must be aware that chlorambucil and other alkylating agents have little effect on the anemia, thrombocytopenia, and hypogammaglobulinemia of CLL.

The use of steroids in combination with alkylating agents is reserved for the hematologic complications of CLL. These complications are anemia secondary to autoimmune hemolytic process, hypersplenism and the "crowded"

marrow syndrome with its resultant anemia and thrombocytopenia. The dose of prednisone is moderately high at 1 mg/kg per day for four to six weeks. Maintenance prednisone at 15-20 mg orally per day is frequently required, although intermittent dosage of 30-40 mg every other day is preferred since it minimizes the side effects of the steroids.

The prognosis is best in those patients with benign disease and in patients that require chemotherapy simply to control the WBC count.⁷ In a recent study these groups had a 55% five-year survival. The survival dropped sharply in the presence of complications and with the use of steroids as part of combination chemotherapy. The survivals were 40% and 23% five-year survival respectively.⁸

Case Reports

Two cases of CLL are described below to illustrate the management of the disease, one being "benign neglect", the other the use of steroid in the treatment of autoimmune hemolytic anemia.

Case #1: *P.K.*, 19-13-89-8, is a 51-year-old white male with "benign" chronic lymphocytic leukemia, diagnosed in 1964 at the time of a routine physical examination. He has been followed at University of Kentucky Medical Center since 1971. In 1971 no significant adenopathy was present. The spleen was palpable 2 cm below the left costal margin. Results of hematologic studies were: WBC 23,100/cu mm with 75% lymphocytes, hemoglobin 16.0 g/%, platelets 202,500/cu mm. Two years later, his spleen was unchanged in size, WBC 17,500/cu mm, with 84% lymphocytes, hemoglobin 15.2 g/%, platelets 160,000/cu mm. During this time *P.K.* has not received treatment, but is seen every 6 months.

Case #2: *M.C.*, 16-69-67, CLL was diagnosed in this 72-year-old male on December 14, 1970. Because of anemia, he was sent to the University of Kentucky Medical Center on December 22, 1970, for further evaluation. Accompanying laboratory data included: WBC 63,000/cu mm with 88% mature lymphocytes, hematocrit 20%, bone marrow examination revealed 30% lymphocytes and erythroid hyperplasia, serum bilirubin 2.1 mg%. The patient could not be crossmatched for transfusion.

M.C. complained of fever, weight loss, and

fatigue. He denied melena, hematemesis, or a past history of gastrointestinal tract disorders. On physical examination he had small nodes in the supra clavicular areas bilaterally, a 3 x 2 cm node in the left axilla, and multiple inguinal nodes; the liver was 3 cm below the right costal margin, and the spleen was enlarged to 8 cm below the left costal margin. Laboratory: Hemogram showed hemoglobin 9 gm%, hematocrit 29.9%, WBC 30,800/cu mm with 80% lymphocytes, reticulocyte count 9%. Red cells were normochromic and normocytic. The direct Coombs test was 4+ positive.

After two days in the hospital, *M.C.* was started on prednisone 45 mg p.o. daily. On December 26, 1970, his hematocrit was 33.5%. Patient was discharged on 12-28-70. On January 23, 1971, after four weeks of prednisone his hematocrit was 40%. All medications were discontinued. On February 28, 1971, the patient was readmitted for fatigue and "blackout spells". Physical examination was unchanged. Laboratory: Hemogram showed hematocrit 20%, WBC 139,000/cu mm with 88% lymphocytes, platelets 275,000/cu mm, and reticulocyte count 30%. His direct Coombs was still 4+ positive and his bilirubin was 9 mg%.

The patient was started on chlorambucil 2 mg p.o.b.i.d. and prednisone 60 mg p.o. daily. After two weeks in the hospital his hematocrit had increased to 35% and WBC had decreased to 55,000 cells/cu mm. Since then he has been followed in our clinic on a regular basis, being maintained on 2 mg of chlorambucil and 20 mg of prednisone three times weekly. His Coombs test is still positive although his hematocrit remains normal. Attempts to taper steroids further have been unsuccessful. Signs of hypercorticism are minimal and the patient is not Cushingoid.

Summary

CLL is a disease of older adults and the best survival figures are in patients with few or no symptoms. Therapy is instituted when the complications of CLL manifest themselves. Chlorambucil is used for WBC counts greater than 100,000/cu mm and can be discontinued intermittently for short periods of time. Bacterial infections are treated promptly and vigorously with appropriate antibiotics.

A patient should be referred to a hematologist if there is any doubt regarding the diagnosis of CLL, when there is difficulty controlling the WBC count, and most importantly when hematologic complications require the use of repeated transfusions of packed red cells or the use of high dosages of steroids.

References

1. Cutler, S.J., Axtell, L., Herman, H.: Ten thousand cases of leukemia. *Journal of the National Cancer Institute* 5:993, 1967.
2. Boggs, D.R., Sofferma, S.A., Wintrobe, M.M., and Cartwright, G.E.: Factors influencing the duration of sur-

vival of patient with chronic lymphocytic leukemia. *Amer. J. of Med.* 40:243, 1966.

3. Perofsky, B.: *Autoimmunization and Autoimmune Hemolytic Anemia*. The Williams and Wilkins Company, Baltimore. pp. 100-117, 1969.


4. Miller, D.G.: Immunological deficiency and malignant lymphoma. *Cancer* 20:579, 1967.

5. Dalton, D.A.G., Wiltshaw, E., Szur, L., and Dacre J.V.: The use of chlorambucil and steroids in the treatment of chronic lymphocytic leukemia. *Brit. J. of Hemat.* 7:73, 1961.

6. Huguley, C.M.: Long term study of chronic lymphocytic leukemia: interim report after 45 months. *Cancer Chemotherapy Reports* 16:241, 1962.

7. Holmes, F.F., Westphal, D.M.: Survival in treated and untreated chronic lymphocytic leukemia. 1942-1968. *Oncology* 25:137-142, 1971.

8. Zippin, C., Cutler, S.J., Reeves, W.J., Lum, D.: Survival in chronic lymphocytic leukemia. *Blood* 42:367, 1973.



Professional *Protection*

CONTINUOUSLY

Since 1899

MEDICAL PROTECTIVE COMPANY

FORT WAYNE, INDIANA

LOUISVILLE OFFICE: Riley Lassiter, Representative
 Suite 260
 Shelbyville Road Mall Office Center
 400 Sherburn Lane
 Telephone: (Area Code 502) 895-5501
 Mailing Address: P.O. Box 20065, Louisville, Kentucky 40220



GRAND ROUNDS



The University of Louisville School of Medicine

This Journal feature will be presented alternately by the University of Louisville and the University of Kentucky Departments of Medicine and Departments of Surgery. We hope to have these features revolve around subjects of immediate practical interest to the practicing physician; and, for those of us not able to attend grand rounds in the teaching centers as often as we might, we hope this will represent a bit of a refresher course.

Sideroblastic Anemias

SIDEROBLASTIC anemia is not a single disorder. It is a descriptive term used clinically to include a heterogeneous group of blood dyscrasias of different etiologies, pathogenetic mechanisms, and clinical courses.¹⁻³ Patients with sideroblastic anemia have the following features in common: (1) the anemia is either hypochromic or dimorphic with the presence of hypochromic and normochromic erythrocytes in various proportion; (2) the serum iron level and the percent saturation of serum iron binding capacity are increased; and (3) the bone marrow is hypercellular with erythroid hyperplasia and the presence of pathologic or ring sideroblasts.

Case Presentation

A 67-year-old Caucasian female was admitted to Louisville General Hospital because of pancytopenia.

The patient had experienced easy-bruisability during the last two years prior to admission. Six months before admission she noticed that the vision in her left eye was "full of specks and spots." A diagnosis of posterior vitreous detachment with vitreous hemorrhage was established and she was treated successfully in the Ophthalmology Clinic. Seven weeks prior to admission, subconjunctival hemorrhage was detected in the left eye. A routine blood count disclosed a hemoglobin of 9.6, a leukocyte count of 4,850, and a "slightly decreased number of platelets" on the peripheral blood smear. The prothrombin time and partial thromboplastin time were normal. The subconjunctival hemorrhage resolved within a period of two weeks and no new hemorrhagic phenomenon was observed. Two weeks prior to admission a repeated blood test revealed

similar degree of anemia and leukopenia and a platelet count of 32,000. Except for a mild degree of weakness and easy fatigability which she had experienced during the past two to three months, there was no history of jaundice or bleeding from the gastrointestinal or genitourinary tract. The patient drank alcoholic beverages rarely and was not taking any medication. There was no history of exposure to toxic chemicals including lead. The dietary intake has been good and there was no change in body weight.

The patient had been in good health except an episode of pneumococcal pneumonia occurred at age 62. The PPD and histoplasmin skin tests were negative at that time and routine hematological tests disclosed normal total leukocyte counts and differential leukocyte counts, "adequate" number of platelets on blood smear and mild normochromic and normocytic anemia with a hemoglobin of 12.3 gm%. Additional studies including serum iron, binding capacity, serum folate, and vitamin B₁₂ were within normal limits.

The patient worked for 40 years in a dry cleaning shop where she had had intermittent exposure to carbon tetrachloride for long periods of time. There was no family history of blood disorders. One of her sons had rheumatic fever and presumably died of pulmonary tuberculosis more than 30 years ago.

Physical examination on admission revealed a well-developed, well-nourished and slightly pale female in no acute or chronic distress. The temperature was 98.2°F, the pulse 102/min and regular, and the respiration 16/min. The blood pressure was 140/70 mmHg. There was no petechiae over the skin and oral mucosa. The conjunctivae were pale, the sclerae

were not icteric and the fundi showed no recent hemorrhages. There was no palpable lymphadenopathy. The lungs were normal to auscultation and percussion and a grade II/VI systolic ejection murmur was present along the left sternal border and over the precordium. The abdomen was soft and flat without palpable hepatosplenomegaly. The extremities showed no edema, cyanosis or clubbing. Neurological examination demonstrated no abnormalities.

Laboratory studies on admission disclosed a hemoglobin of 9.3, hematocrit of 29.9, erythrocyte count of 2.85×10^6 and reticulocyte count of 2.6%. The MCV was 105 and MCHC 31.2. There was marked aniso- and poikilocytosis. The erythrocytes were dimorphic with the presence of both hypochromic microcytic and normochromic macrocytic red cells at approximately equal proportion. The total leukocyte count was 4,100, with 33% segmented neutrophils, 2% eosinophils, 1% basophils, 47% lymphocytes, and 17% monocytes. There was 1 normoblast/100 leukocytes. The platelet count was 44,000. A sternal marrow aspirate disclosed hypercellularity and slightly decreased number of megakaryocytes. There was moderate erythroid hyperplasia with "megaloblastoid" erythropoiesis. A marrow differential cell count showed 1% myeloblasts, 1.5% promyelocytes, 6.5% myelocytes, 5% metamyelocytes, 6% band forms, 8% segmented neutrophils, 5% lymphocytes, 7% monocytes, 5% erythroblasts, 15% basophilic normoblasts, 26% polychromatic normoblasts, and 14% acidophilic normoblasts. There was increased hemosiderin with many sideroblasts some of which were ring sideroblasts. The serum iron was 200 $\mu\text{g}\%$ and total iron binding capacity was 345 $\mu\text{g}\%$. The serum folate was 6.5 ng/ml, erythrocyte folate 709 ng/ml, and serum vitamin B₁₂ 280 pg/ml. The leukocyte alkaline phosphatase score was low (patient 32, control 166) and leukocyte myeloperoxidase activity was normal. There was no increase in hemoglobin A₂. The stool was negative for occult blood tests. The BUN, creatinine, serum electrolytes (K⁺, Na⁺, Cl⁻), urinalysis, chest x-ray, EKG, liver function tests (SGOT, alkaline phosphatase, bilirubin, serum albumin and globulin and LDH) and serum protein electrophoresis were normal. A PPD skin test, LE test and antinuclear antibody were negative. There was no spleno-

megaly demonstrated on the radioactive scan.

Following the diagnostic studies, the patient was given pyridoxine 100 mg/day orally. No hematological response was observed after two months of therapy.

Discussion

The finding of hypochromic erythrocytes point to a defect in hemoglobin synthesis. Since hemoglobin is made up of three basic components, i.e. iron, porphyrin ring, and globin, quantitative defects in any one of these components, or abnormalities in the incorporation of iron into porphyrin ring (formation of heme), or defects in the reaction between heme and globin chains (formation of hemoglobin) could lead to decreased rate of hemoglobin synthesis within the erythroid cells and, eventually, hypochromic erythrocytes. The iron required for the synthesis of hemoglobin comes from reticuloendothelial cells after catabolizing senescent red cells and, to a lesser extent, from gastrointestinal absorption.⁴ It is transported in plasma to erythroid cells in the bone marrow by a specific iron binding beta-globin, the transferrin, which can adhere specifically to the receptors located in the membrane of developing red cells. Following the adherence of transferrin to the membrane, the iron is released into the interior of the cell and the unsaturated transferrin molecule is returned to plasma for similar transporting function again. The iron released at the membrane is transported within the cytoplasm by an unknown mechanism to the mitochondria where porphyrin ring is formed. In the presence of the enzyme heme synthetase, iron is then incorporated into the porphyrin ring to form heme. Thereafter, the heme molecule is united in the cytoplasm with two pairs of globin chains which are formed independently in the polyribosome. Any excess of iron which is not used for hemoglobin synthesis is removed by the mechanism of pinocytosis by the reticulum cells adjacent to erythroid cells in the bone marrow. Rarely, unused iron may not be completely removed from an erythroid cell and as such a cell matures, it is delivered into the circulation with non-heme iron. This cell is a siderocyte. As a siderocyte passes through the spleen, the non-heme iron granules are usually removed by the splenic macrophage. On the basis of iron metabolism within the erythroid

cells, either relatively more iron is delivered to the young red cells in excess of the requirement for hemoglobin synthesis or reduced removal of non-heme iron from such a cell or the presence of intrinsic defect of the mitochondria resulting in the accumulation of iron therein could lead to increased number of non-heme iron granules in the cytoplasm of nucleated red cells. These cells are the sideroblasts. According to Dacie and Mollin,¹ morphologically three types of sideroblasts can be distinguished under the light microscope. The first type is the one present in normal bone marrow. It contains few small iron granules in the cytoplasm. The second type is seen largely in conditions associated with increased iron store in the body. The iron granules are large and numerous. The third type is seen in patients with sideroblastic anemia. This type of sideroblasts contains numerous large iron granules which may be scattered within the cytoplasm or may form a conspicuous "ring" or "collar" around the nucleus. The mechanism for the "ring" or "collar" arrangement is not entirely clear, but in some cases the iron in such an arrangement has been shown to be located in perinuclear mitochondria.

The etiologies as well as the pathogenetic mechanisms in a vast majority of patients with sideroblastic anemia remain unclear. Clinically, however, sideroblastic anemia can be classified as hereditary or acquired (Table 1).

The *hereditary sideroblastic anemia*⁵ appears to be a sex-linked, inherited abnormality affecting, with rare exceptions, the males. The

anemia, diagnosed between the second and third decade of life in the majority of cases, is moderate to severe and the erythrocytes are usually hypochromic and microcytic. Less frequently the red cells may be dimorphic. Leukopenia and thrombocytopenia are rare, hemoglobin F and hemoglobin A₂ are not increased and hepatomegaly and splenomegaly are uncommon. Decreased erythrocyte coproporphyrin and protoporphyrin levels have been observed in a number of patients with hereditary sideroblastic anemia. Since pyridoxal-5-phosphate, an active coenzyme form of pyridoxine, is essential for the initial step of porphyrin synthesis, these findings suggest the possibility of an abnormality in pyridoxine metabolism which could then lead to defective heme synthesis and accumulation of non-heme iron granules within the erythroid cells. Furthermore, an abnormally increased iron absorption from the gastrointestinal tract has been demonstrated in occasional patients. The pathogenetic significance of this finding remains unclear, however. Some patients with hereditary sideroblastic anemia respond to large pharmacologic doses of pyridoxine (100-200 mg/day) and continuous therapy is essential to maintain the response. The hematological response in these patients is incomplete, i.e. the hemoglobin does not completely return to normal and the ring sideroblasts and morphological abnormalities of erythrocytes persist.

Thalassemia is a common form of hereditary sideroblastic anemia. The reduced rate of synthesis of beta or less frequently, alpha globin chain in the polyribosomes in the erythroid cells due to a genetic abnormality leads to decreased hemoglobin synthesis. Therefore, relatively more non-heme granules may accumulate in the nucleated red cells. In adults the anemia is mild to moderate and the erythrocytes are typically hypochromic and microcytic. Target cells are commonly present in the blood smear. In the majority of patients, there is increased percentage of hemoglobin A₂ and hemoglobin F. The spleen may be palpable. Effective therapy is not available.

Patients with acquired type of sideroblastic anemia have no family history of hypochromic anemia. Depending upon the absence or presence of an associated disease or a history of exposure to certain drugs or toxic agents,

TABLE 1
Classification of Sideroblastic Anemias

- I. Hereditary
 - A. Hereditary Sideroblastic Anemia
 - B. Thalassemias
- II. Acquired
 - A. Primary
 1. Refractory Sideroblastic Anemia
 2. Pyridoxine Responsive Anemia
 - B. Secondary
 1. Sideroblastic Anemia associated with another disorder:
 - a. Hematological diseases: myeloproliferative disorders, pernicious anemia, hemolytic anemia, erythremic myelosis, leukemia, myeloma, lymphoma.
 - b. Non-hematological diseases: rheumatoid arthritis, metastatic carcinoma, myxedema, chronic infections, uremia, porphyria.
 2. Sideroblastic Anemia Secondary to Drugs or Toxic Agents: Isoniazid, cycloserine, pyrazinamide, chloramphenicol, lead and alcohol.

the acquired sideroblastic anemias may be further divided into primary and secondary forms, respectively.

The *primary sideroblastic anemia* is diagnosed commonly in patients over 40 years of age and both sexes are approximately equally affected. The anemia, which is moderate to severe, is dimorphic (coexistence of hypochromic microcytic and normo-chromic macrocytic erythrocytes in various proportion) or, less commonly, hypochromic microcytic. Marked anisocytosis and poikilocytosis are common. The erythropoiesis in the bone marrow is either megaloblastoid or normoblastic type and there is increased number of ring sideroblasts. Leukopenia and thrombocytopenia are not uncommon and leukocytosis or thrombocytosis may be seen in rare instances. The leukocyte alkaline phosphatase score is frequently low and PAS-positive material is not increased in erythroblasts. The percentages of hemoglobin F and A₂ are not elevated. Abnormalities of folic acid and/or pyridoxine metabolism are common. Although no consistent abnormalities of the various enzymatic steps involved in heme synthesis have been demonstrated, elevated erythrocyte coproporphyrin and protoporphyrin levels as well as decreased incorporation of glycine-¹⁴C into erythroblasts have been observed in a number of cases. These findings suggest that defective heme synthesis occurs in patients with this form of sideroblastic anemia. The clinical course is usually chronic and relatively benign. Rarely, patients with primary sideroblastic anemia, particularly those with a macrocytic erythrocyte index and monocytosis may terminate in acute myeloblastic or acute monocytic leukemia.⁶ Patients with primary sideroblastic anemia that terminate in aplastic anemia have also been reported.⁷

In a substantial number of patients, the anemia fails to respond to all known hematinics including pharmacological dose of pyridoxine. These patients are considered as having *idiopathic refractory sideroblastic anemia* (IRSA).⁸ Recent studies suggest that hematologic response to androgen therapy may be observed in rare patients with IRSA.⁹

Approximately half of patients with primary sideroblastic anemia respond to large doses of pyridoxine. None of these subjects has direct evidence of deficiency of this vitamin. These patients are considered as having *pyridoxine-*

responsive anemia (PRA).¹⁰ Similar to some patients with hereditary sideroblastic anemia who respond to large doses of pyridoxine, the hematological response is rarely complete in patients with PRA. There are no tests which differentiate patients with PRA from others with IRSA at the present time. Therefore, patients with primary sideroblastic anemia should be given a therapeutic trial of pharmacologic dose of pyridoxine along with or without folic acid and/or ascorbic acid.

The *secondary sideroblastic anemia* occurs in patients either with an associated disorder or a history of exposure to certain drugs or toxic agents. The pathogenetic mechanism for this type of sideroblastic anemia in general remains unclear. A number of hematological and non-hematological disorders have been observed in patients with sideroblastic anemia (Table 1). The anemia in patients with a non-hematological disorder is usually moderate and non-progressive. Although biochemical defects of folate and pyridoxine metabolism have been observed in a number of these patients, none of them responded to large doses of these vitamins.

Antituberculous drugs such as isoniazid,¹¹ cycloserine,¹² and pyrazinamide¹³ have been reported to cause sideroblastic anemia. The anemia is completely reversible following the discontinuation of these drugs. The anemia may also respond to large doses of pyridoxine in some patients despite continuation of anti-tuberculous agents.¹⁴ Despite the widespread use of these anti-tuberculous agents, the occurrence of sideroblastic anemia is probably rare. Recent observations suggest that isoniazid ingestion causes sideroblastic anemia by accentuating an underlying inherited abnormality in heme synthesis. Chronic lead poisoning may cause sideroblastic anemia. A number of studies indicate that lead not only inhibits several enzymes (heme synthetase, ALA synthetase and ALA dehydrase) essential for heme synthesis but also the production of globin chain.^{15,16} Alcohol ingestion may cause sideroblastic anemia in folate depleted subjects. The sideroblastic changes are reversible by the administration of pyridoxal-5-phosphate, but not by proxidine and folate, despite continuation of alcohol.¹⁷ Therapeutic doses of chloramphenicol may also cause sideroblastic anemia which is reversible following discontinuation of this antibiotic.¹⁸

The patient described herein has a hypochromic macrocytic anemia. The peripheral blood shows hypochromic microcytic and normochromic macrocytic erythrocytes along with marked aniso- and poikilocytosis. Very few target cells are seen. The serum iron and percent saturation of iron binding capacity are elevated. The marrow showed erythroid hyperplasia with megaloblastoid erythropoiesis. Ring sideroblasts are present. These findings indicate that the patient has sideroblastic anemia. Since she has no family history of hypochromic anemia, is not taking any medication, does not have a history of exposure to toxic agents which may cause this form of anemia, and has no associated diseases, it is highly likely that the sideroblastic anemia is of the primary acquired type. Furthermore, the fact that no hematological response has been observed following two months of pharmacological doses of pyridoxine suggests that the patient probably has *idiopathic refractory sideroblastic anemia*. In view of some recent retrospective studies⁶ suggesting that occasional patients with idiopathic refractory sideroblastic anemia with monocytosis and a macrocytic erythrocyte index may eventually develop acute leukemia, long-term close hematological follow-up has been planned for this patient.

YONG K. LIU, M.D.

References

1. Dacie, J.V. and Mollin, D.L. Siderocytes, Sideroblasts and Sideroblastic Anemia, *Acta. Med. Scand.* 179: (Suppl. 445) 237, 1966.
2. Hines, J.D. and Grasso, J.A. The Sideroblastic Anemias. *Seminars in Hemato.* 7:86, 1970.
3. Mollin, D.L. Introduction: Sideroblasts and Sideroblastic Anemia. *Brit. J. Haemato.* 11:41, 1966.
4. Harris, J.W. and Kellermeyer, R.W. *The Red Cell*. Harvard University Press. Cambridge, Mass., 1970.
5. Losowsky, M.S. and Hall, R. Hereditary Sideroblastic Anemia. *Brit. J. Haemato.* 11:70, 1965.
6. Saarni, M.I. and Linman, J.W. The hematologic syndrome preceding acute leukemia. *Am. J. Med.* 55:38, 1973.
7. Brittin, G.M., Stohlman, F. Jr. and Tanaka, Y. A Primary sideroblastic anemia terminating in bone marrow failure. *Am. J. Clin. Path.* 50:467, 1968.
8. Kushner, J.P., Lee, G.R., Wintrobe, M.M. and Cartwright, G.E. Idiopathic Refractory Sideroblastic Anemia. Clinical and laboratory investigation of 17 patients and review of the literature. *Medicine* 50:139, 1971.
9. Haurai, R.I. and Green, D. Primary Defective Iron Utilization. *Am. J. Med.* 42:151, 1967.
10. Horrigan, D.L. and Harris, J.W. Pyridoxine-Responsive Anemia: Analysis of 62 cases. *Adv. in Int. Med.* 12:103, 1964.
11. McCurdy, P.R. and Donohoe, R.F. Pyridoxine-responsive anemia conditioned by isonicotinic acid hydrazide. *Blood* 27:352, 1966.
12. Verwilghen, R., Reybrouck, G., Callens, L., et al. Anti-tuberculous drugs and sideroblastic anemia. *Brit. J. Haemato.* 11:92, 1965.
13. McCurdy, P.R., Donohoe, R.F. and Magovern, A. Reversible sideroblastic anemia caused by pyrazinoic acid (Pyrazinamide). *An. Int. Med.* 64:1280, 1968.
14. Haden, H.T., Pyridoxine-responsive sideroblastic anemia due to anti-tuberculous drugs. *Arch. Int. Med.* 120:602, 1967.
15. Goldberg, A. Lead poisoning as a disorder of heme synthesis. *Seminars in Hemato.* 5:424, 1968.
16. Traketeller, A.C., Hemle, E.W., Montjar, M., et al. Studies on rat reticulocyte polysomes during vitro maturation. *Arch. Biochem. Biophys.* 112:89, 1965.
17. Hines, J.D. Reversible megaloblastic abnormalities in alcoholic patients. *Brit. J. Haemat.* 16:87, 1969.
18. Beck, E.A. Reversible sideroblastic disorder after treatment with chloramphenicol. *Helv. Med. Acta.* 34: (Suppl. 139), 1967.

Notice To Contributors

Members of the Kentucky Medical Association reading papers before other organizations are asked to submit their papers to *The Journal* for consideration by the Editors for publication. Detailed instructions to contributors appear in the Scientific Section of *The Journal* under Manuscript Memos. Please forward any papers to:

Charles C. Smith, Jr., M.D., Scientific Editor
The Journal of the Kentucky Medical Association
3532 Ephraim McDowell Drive
Louisville, Kentucky 40205

SPECIAL ARTICLES

Should Economic Factors Contribute to Medical Therapeutic Decisions?*

HIRAM C. POLK, JR., M.D. AND E. TRUMAN MAYS, M.D.

INCREASINGLY it has become apparent that the wealth and productivity of the United States, great though it may be, is not sufficient to accomplish all those worthy ends which an alert and thoughtful society finds useful. This is as true in the health professions and related industries as in other more mundane undertakings. Although we strongly believe that the existing medical care system should not become a tool for correcting overwhelming social and educational injustices, it is extremely important that all physicians be aware of alternatives and controversies regarding expenditures of effort.

The following two papers focus on such considerations. The first is a careful study of the cost of a complex operative procedure which is usually necessary only in patients manifesting an end stage of a slightly reversible illness. Mr. Middleton is presently a fourth-year student at the University of Louisville School of Medicine and holds the degree of doctor of philosophy awarded by the University of Kentucky in 1969. His studies for the period involved are, in the opinion of the authors, accurate and descriptive of both the patients and the economic endeavor.

Captain Knapp, for the period January 1 to April 30, 1973, served as Assistant Clinical Professor of Surgery at the University of Louisville School of Medicine, on leave from the Bureau of Medicine and Surgery of the Department of the Navy. Captain Knapp is a fully trained and Board-certified surgeon and holds a major teaching responsibility at one of the Navy's four institutions providing full surgical

residency experience. His parody of a situation engendered by Mr. Middleton's study is stimulating and smacks a bit of Orwell's 1984. One does not need an electronic calculator to realize that 1984 is but 11 years away and that such changes in the medical arena may come even more rapidly because of their usefulness to those with political ambitions.

The thoughtful reader will recognize immediately a fundamental fallacy in Mr. Middleton's paper and in Captain Knapp's parody. If the survival rate from this particular surgical procedure were higher, the likelihood of economic rehabilitation would improve and the economic justification for portal-systemic shunting would change radically in favor of such operations. Moreover, this data cannot be applied to other hospital settings in Kentucky by virtue of the peculiarities of the population cared for at Louisville General Hospital. Eight of the nine patients described by Mr. Middleton were Child class "C" cirrhotics,¹ and seven of the eight required emergency portal decompression. Even those clinicians who most avidly espouse emergency portal-systemic shunting procedures for alcoholic liver disease (a prime topic during the recent Digestive Disease Week meetings in New York City) report 50% mortality rates in patients so treated, and these rates exceed 75% for Child C patients requiring emergency operations. One may see readily that an increase in the proportion of better risk patients at Louisville General Hospital would be likely to alter these data. Given the setting of some private hospitals where medical care often is sought at an earlier stage in the illness, the overall economic result might be thoroughly different. Mr. Middleton's data do appear to be accurate for the patient

*From the Department of Surgery, University of Louisville School of Medicine, Health Sciences Center, Louisville

population served at Louisville General Hospital and continue to reflect the difficulty in dealing with the end stages of broadly systemic diseases. The accompanying table indicates the likely alternatives which could be accomplished in Mr. Middleton's analysis by the simple distribution of patients to represent a more favorable stage of disease when portal-systemic shunting is considered.

Lest one feel that we are moving closer to so-called "prophylactic" portacaval shunt, we commend to the reader the studies of the Boston Inter-hospital Liver Group² and of Conn and associates.³ Repeatedly these studies have failed to show that preventive or elective operations enhance overall long-term survival rate of the patients. They do change the nature of the patient's subsequent months of life. Patients who are managed nonoperatively continue to bleed and often exsanguinate as a mode of death. Although patients undergoing operation have a similar survival or mortality rate, their demise occurs in radically different fashion. Fifteen to 20 per cent will die of complications of their operation and/or their liver disease during peri-surgical hospitalization. When no differential studies are undertaken, a substantial portion of patients will be harmed by portacaval shunting to the extent that nutrient blood flow to the liver will be diverted through the shunt, and total hepatic function will be aggravated and deteriorate as indicated repeatedly by Warren and associates.^{4,5}

Our civilization emerged from Anglo-Saxon cultures which were strongly influenced by the

Judeo-Christian philosophy that human life is invaluable and inviolable. This basic tenet is unrelated to the apparent or calculated worth of the individual. The invaluable aspect of a human life is grounded in the unchanging personal relation between the individual and God, not in the secular whim or political fashion of the crowd. It is to the credit of American medicine that the majority of physicians actively practice this ethic.

Mr. Middleton's premise is that even in affluent America the total quantity of medical resources are not infinite. Accepting that there are limitations to the total medical resources, physicians then must consider the distribution of these medical resources.

Technological developments are rapidly thrusting physicians into new decision-making roles regarding the dignity of human life. Warning flags have begun to appear. Much is written today about the "consumer ethic" and the role of the consumer deciding the distribution of health care. Laymen are notorious for adopting a "cause célèbre" because a loved one is stricken with a chronic disease process or because a celebrity develops a particular disease and his suffering vicariously grips the nation.

Logically physicians should lead the re-evaluation of medical resources and accept their rightful responsibility to accumulate data on various diseases and their relative costs, not only to individuals but to taxpayers who already provide massive sums to certain areas of health care. Mr. Middleton's paper delineates only one such sector. Many others need in-

TABLE 1
Comparisons of Cost per Survivor and
Rehabilitated Survivor of Portal-Systemic Shunts*

Characteristics of the Clinical Data Base	Projected Cost of Nine Portal-Systemic Anastomoses (1972 \$)	Projected Cost Per Survivor	Projected Cost Per Rehabilitated Survivor
LGH (Middleton)	\$66,429.25	\$33,214.62	\$66,429.25
Even Distribution** (3 patients each in Child Class A,B,C)	\$66,429.25	\$16,607.31	\$22,143.08
Favorable Distribution*** (4 patients Child Class A, 3 patients Child Class B, 2 patients Child Class C)	\$66,429.25	\$11,071.54	\$16,607.31

*Based upon the following assumptions:

**Class A → 3 survivors; Class B → 1 survivor; one survivor disabled by hepatic encephalopathy.

***Class A → 4 survivors; Class B → 2 survivors; one survivor disabled by continuing alcoholism, the other by hepatic encephalopathy.

vestigation. Spratt has described an interesting approach to such quantitation.⁶

This sort of approach is not to be construed as an abandonment by physicians of their primary duty of patient care to become pseudo-economists or sociologists. On the contrary, kinds of data collected by Mr. Middleton are needed in greater numbers and in many more areas—particularly, for example, in preventable diseases—in order for physicians to have sound bases of judgment for directing medical resources to the maximal benefit of patients with respect to the overall ability of society to provide such resources.

The authors do not present this series of communications as anything other than a

timely attempt to review a narrow aspect of our experiences and to consider a sociologic phenomenon which may not be far removed.

References

1. Child C.G. III: The shattuck lecture: The portal circulation. *New Eng J Med* 252:837-850, 1955
2. Resnick R.H., Chalmers T.C., Ishihara A.M., et al: A controlled study of the prophylactic portacaval shunt. A final report. *Ann Intern Med* 70:675-688, 1969
3. Conn H.O., Lindenmuth W.W.: Prophylactic portacaval anastomosis in cirrhotic patients with esophageal varices and ascites. *Amer J Surg* 117:656-661, 1969
4. Warren W.D., Muller W.H. Jr: Clarification of some hemodynamic changes in cirrhosis and their surgical significance. *Ann Surg* 150:413-427, 1959
5. Salam A.A., Warren W.D., LePage J.R., et al: Hemodynamic contrasts between selective and total portal-systemic decompression. *Ann Surg* 173:827-844, 1971
6. Spratt J.S. Jr: The measurement of the value of the clinical process to individuals by age and income. *J Trauma* 11:966-973, 1971

An Economic Consideration of Portal-Systemic Anastomoses

JAMES MIDDLETON, PH.D.*

CONSIDERABLE controversy exists about the capacity of portal-systemic anastomosis (PSA) to prolong the life of a patient ill of cirrhosis with esophageal varices. Although PSA has been used for some 25 years, the data based on man-years of survival are not decisive.^{1,2} Furthermore, certain economic considerations have been considered by physicians in making decisions for or against PSA on patients. The physician has relatively limited resources at his disposal, and society is ever more expecting them to be allocated so that health care can be maximized. With almost unlimited demand for medical resources, what role, if any, should economics play in making decisions?

Objectives

The main purpose of this paper is to subject the decisions usually made with respect to PSA to economic evaluation and to suggest an approach which can be used to improve decisions on use of medical resources. The specific objectives are:

- (1) to determine the principal factors contributing to the cost of a PSA,
- (2) to indicate the nature of the demand for medical resources of a facility,
- (3) to show how costs of management of patients after PSA are changing, and
- (4) to identify the source of funds for patients undergoing PSA.

Methodology

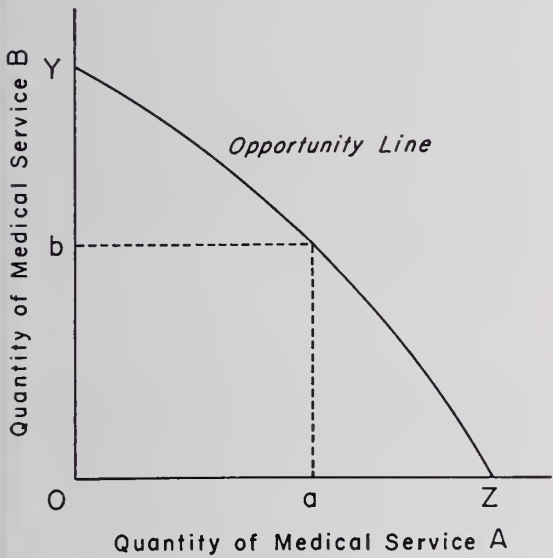
All PSA's done at the Louisville General Hospital (LGH) from 1969 through 1972 were identified to obtain the information needed. Nine PSA's had been performed, and the detailed costs for each of these were obtained from the billing office. All bills were adjusted to 1972 dollars to account for price change over time. Each bill was broken down into component charges—room, blood, laboratory, x-ray, operating room and recovery room, pharmacy, inhalation therapy, anesthesia, intravenous fluids, and central supply charges—and the percentage of total bill that each of these charges comprised was calculated. In addition, the average for each component charge was found.

Because of the small number of observations, no statistical test was feasible. As is

*From the Department of Surgery, University of Louisville School of Medicine, Health Sciences Center, Louisville

frequent in medical research, the number of cases are not sufficient to permit elaborate statistical analyses. However, a few observations with stable averages provide sufficient input data for making decisions, if cast in proper theoretical framework.

The economic theory utilized in this paper is the concept of opportunity or alternative cost. Briefly stated, when resources are limited, the value (contribution) of the foregone service is the minimum cost of producing the service actually performed. This can be illustrated as shown in Figure 1.



With a given quantity of medical resources available, OY quantity of medical service B can be provided, or OZ quantity of medical service A, but not both. The opportunity line represents various combinations of services A and B that can be provided. The decision to provide Oa amount of medical service A will mean that bY amount of medical service B cannot be provided. Thus to provide Oa, the minimum cost is the value of bY foregone.

How Much Does It Cost?

The quantity of resources used in PSA's as measured by the direct dollar cost for each patient is quite large (Table 1), particularly when compared to alternatives for the use of resources. Hospital rooms and laboratory and blood fees comprised 78% of the total costs.

The items to be examined first for possible cost reductions and inefficiencies in manage-

TABLE 1
Total Costs of 9 PSA's at LGH

Measure	Actual Dollars	1972 Dollars
Total Costs	65,500.60	66,429.25
Average (Mean)	7,266.67	7,381.03
Average (Median)	5,604.14	5,791.64
Range	2,171.83-18,612.70	2,228.83-18,612.70

ment of the patient are shown in Table 2. In examining the relative expenditures, one should note that many of these are often required as a system, i.e., a simultaneous expenditure in all categories. In addition, the more recent cases received a greater allocation of resources, even when measured in constant dollar value. This is attributable in part to the increasing complexity of medical services available.

Who Pays For It?

The financial burden for the Louisville General Hospital falls largely to the taxpayers of Louisville and Jefferson County, not to the individuals treated (Table 3). However, a substantial amount came from insurance, which is, in effect, a burden on fellow policy holders because of the pooled risk covered through insurance premiums.

Clearly, the data indicate that management of PSA patients is an expensive endeavor, particularly when compared with medical management of other illnesses.³⁻⁷ At the University of Kentucky Medical Center, patients on a medical or surgical service during July, 1971, had an average bill of \$964.05.⁸ The "problem drinkers" on the surgical service, who did not undergo PSA, at that time had an average

TABLE 2
Cost Analysis of the Average PSA Bill at LGH

Item	1972 Dollar Cost	Percentage of Bill
Room	\$1,942.26	30
Laboratory	1,554.60	24
Blood & Blood Products	1,554.60	24
X-ray	194.23	3
Operating Room and Recovery Room	453.43	7
Anesthesia	64.78	1
Inhalation Therapy	388.65	6
Central Supply	129.55	2
Pharmacy	194.23	3
Intravenous Fluids	64.73	1

bill of \$1,689.93. By contrast, the average bill of a patient admitted to a large southern general hospital for stab and gunshot wounds was \$1,046.00.⁹ Not only does the PSA patient require expensive treatment, but the mortality rate remains high: seven of the nine patients receiving this treatment at LGH died within 30 days of operation, another died in less than a year, and data on the other patient indicates he was well enough not to require further medical care.

Perhaps more important than the dollars spent on PSA patients is the value of other medical services foregone because they were used for these patients. In other words, the resources may have produced far more in terms of medical service rendered if allocated for other purposes. PSA patients were in LGH for an average of 32 days with 10 days in the intensive care unit; by contrast, a patient on medical or surgical service at the University of Kentucky Medical Center spent only 7.7 days in the hospital with no time in the intensive care unit. Moreover, on the average, the PSA patient required 49.6 units of blood and blood products and almost 5½ hours of operating room time (mean figures). The PSA patient, in addition to requiring lengthy hospital time, places heavy demands on some of the most skilled hospital personnel. In view of the short supply of hospital rooms, highly skilled special personnel, and blood and blood products, one certainly can question an economic decision allocating scarce resources for such procedures, particularly when the prognosis is so dismal.

Conclusions

The general contention throughout this study is that the concept of alternative or opportunity cost is valid, useful, and necessary in making decisions on resource utilization. The physician as a decision-maker, the hospital as a decision-making firm, and society as a determiner of goals and provider of a large part of the resources cannot escape the brutal economic consequences of "wrong" or "bad" decisions. Although purely medical considerations are necessary in the decision-making process, they are not sufficient to render a final decision;

TABLE 3

Sources of Payment of Bills for PSA Patients

Source	Amount	Percentage
Public Tax Support	\$48,565.97	81
Private Insurance	11,480.00	18
State Aid	5,454.00	1
Private Funds (Individuals)	171.00	0

the physician must also be aware of the economic and social implications.

From the data presented, it is obvious that patients who undergo portal-systemic anastomoses require large quantities of expensive and scarce medical resources, and increasing quantities will be required. The general public has paid a large part of the bill with few benefits in terms of improved medical care; the surgeon's increased knowledge from performing portal-systemic anastomoses is perhaps the sole benefit. Thus, the public legitimately can challenge the wisdom of such decisions, particularly when alternate uses of public resources are considered.

Acknowledgement

I would like to thank Dr. John C. Redman, Professor of Agricultural Economics at the University of Kentucky, for his advice and assistance in writing this paper.

References

1. Conn H.O., Lindenmuth W.W.: Prophylactic portacaval anastomosis in cirrhotic patients with esophageal varices. *New Eng J Med* 279:725-31, 1968
2. Jackson F.C., Perrin E.B., Felix R., Smith A.G.: A clinical investigation of the portacaval shunt: V. Survival analysis of the therapeutic operation. *Ann Surg* 174:672-701, 1971
3. Rice D.P.: Measurement and application of illness costs. *Pub Heal Rep* 89:95-101, 1969
4. Klarman H.E., Francis J.O.S., Rosenthal G.D.: Cost effectiveness analysis applied to the treatment of chronic renal disease. *Med Care* 6:48-54, 1968
5. Report of the Committee on Chronic Kidney Disease. U.S. Government Printing Office, Washington, D.C., 1967
6. Smith W.F.: Cost-effectiveness and cost-benefit analysis for public health programs. *Pub Heal Rep* 83:899-906, 1968
7. Scitovsky A.A.: Changes in the costs of treatment of selected illnesses, 1951-1965. Paper presented at the Annual Meeting of the American Public Health Association, San Francisco, 1968
8. Middleton J.W. Jr: A feasibility study for an analysis of economic factors associated with the hospital treatment of patients who are also problem drinkers. Unpublished paper.
9. Jett H.H., Van Hoy J.M., Hamit H.F.: Clinical and socio-economic aspects of 254 admissions for stab and gunshot wounds. *J Trauma* 12:577, 1972

. . . And Who Shall Measure?†

R. W. KNAPP, M.D.*

*Glanton, Kentucky
August 24, 1978*

THE problems and attempts at solution reported herein are drawn from experience in the clinical and laboratory divisions of the Kentucky State School of Medicine at Forville County Hospital, Glanton, Kentucky. This describes a serious problem which was felt to exist in this hospital, outlines the approach to a solution, and assays overall results of that solution in clinical application.

The Problem

Forville County Hospital (FCH) is a 400-bed general hospital located in central Glanton and serving the total medical needs of the indigent population in an industrial metropolitan complex of about 750,000 people. It is essentially accurate to state that FCH has a clientele, facilities, and mode of practice much like city-county hospitals elsewhere with which the reader will easily identify.

In late 1975, it was perceived that the number of patients admitted for care of bleeding esophageal varices had become sufficiently large and the costs so substantial that other hospital functions were being compromised. Patients with bleeding varices in the intensive care unit were so numerous and demanded such close attention that nursing procedures were occasionally denied other ICU occupants. A constant demand for large volumes of blood for transfusion had brought the blood bank to its knees, and senior residents frequently found their elective surgical procedures delayed or cancelled by emergency operations to control hemorrhage from varices.

The matter finally came to a head in October, 1975, when the Glanton Ethnic Council (GEC) brought suit against the Forville Coun-

ty Board of Health in the interest of its member, Raleigh Wilms. The suit alleged that Mr. Wilms' constitutional right to medical care had been violated when his operation for symptomatic cholelithiasis was cancelled three times over a two-month period. Investigation showed that Mr. Wilms' operation had been cancelled once because of nonavailability of blood and on two occasions by supervening emergency portal-systemic shunt operations. The suit was dropped after Mr. Wilms was scheduled and operated on by the director of the surgical service, but the hospital board was sensitized to a potentially recurrent problem. Accordingly, they appointed the chief of surgery, chief nurse, and chief of laboratory services to study the matter.

The B.E.V. Commission

Early discussion by the initial appointees favored a bold approach to the problem, but opinions from several facets of the community were deemed necessary inasmuch as the various ramifications were profound in their impact. Therefore, the bleeding esophageal varices (BEV) Commission was formed with the following additional appointments: Rev. Harry C. Harris, Municipal Council of Churches; R. Burris Jones, Glanton Ethnic Council; Winston Clapp, M.D., chief of medicine, Forville County Hospital; and Emily A. Corrithers, delegate, Glanton City Council.

The BEV Commission set out to identify the extent of the problem by studying the care of patients with bleeding esophageal varices in FCH in the 24-month period, January, 1973-December, 1974. An attempt was made to select for study patients whose disease was clearly the result of chronic alcohol intake, verified by history or statements of family and social workers. Persons whose cirrhosis was postnecrotic or of doubtful origin were excluded. Thirty-three patients were finally identified as having been treated for bleeding varices during the period studied.

†The views expressed herein are those of the author and do not necessarily reflect the opinion of the Department of the Navy.

*Assistant Chief of Surgery, Portsmouth Naval Hospital, Portsmouth, Virginia. Formerly Clinical Assistant Professor of Surgery, University of Louisville School of Medicine, Health Sciences Center, Louisville

TABLE 1
Group Without Surgical Treatment
(12 Patients)

	Died in Hospital (9)	Lived 3-18 Months (3)
Average Hospital Stay	10	21
Average Hospital Cost	\$2460	\$5620
Average Cost Subsequent Admissions	—	\$2460
Total Cost (\$46,380)	\$22,140	\$24,240
Total Patient Days (183)	90	93

Tables 1 and 2 show that 12 patients were treated nonsurgically for esophageal bleeding, while 21 received operative treatment in the form of a portal-systemic anastomosis. Most of the patients in the group not having surgical treatment were Child C classification, while most of those in the group receiving surgical treatment represented the better operative risks of Child Class A or B disease. In the group without surgical treatment, hospital mortality was 66% and all patients were dead of their disease within 18 months.

Two patients selected for operative treatment were lost to follow-up. Fifteen others died within 30 days of their operations, and two others succumbed within 24 months of hospital discharge, requiring eventual re-admission before or during terminal illness. Two patients remain alive and are known to drink only occasionally, not having resumed their previous heavy intake of alcohol. One is employed as a porter, and the other is unable to work, essentially bedridden as a result of hepatic encephalopathy, possibly induced by

his shunt because of deprivation of nutrient hepatic blood flow via the shunt.

B.E.V. Commission Action

On the basis of these data, the BEV Commission noted a total of 854 patient days of hospitalization and a gross cost of \$204,100 was required over 24 months to treat 33 patients and return one of them to employment. After much study and heated debate, the commission made the following recommendations for treatment of bleeding varices at Forville County Hospital.

1. Patients are to be selected for a special prospective "study" group. The criteria for selection are as follows:

- Known incorrigible alcoholics with asocial tendencies manifested by criminal record or family abandonment.
- Verified diagnosis of Laënnec's cirrhosis with demonstrable, bleeding esophageal varices.
- Clinical profile in Child B or C category on admission that is not improved by treatment.

2. Selections for the study group are to be made by permanent members of the BEV Commission, called into consultation for each patient.

3. Patients in the study group are to be treated by the following general plan:

- Hgb, Hct, electrolytes, serum proteins, BUN, and prothrombin time are brought to as near normal as possible by blood transfusion, fluids, and drug therapy.
- Bleeding is controlled by any of several methods including Sengstaken tube, gas-

TABLE 2
Group with Surgical Treatment
(21 Patients)

	Died in Hospital or Within 30 Days (15)	Lived 12-24 Months (2)	Living and Well (2)	Lost to Follow-up (2)
Average Hospital Stay	31	31	31	31
Average Hospital Cost	\$7200	\$7200	\$7200	\$7200
Cost Subsequent Admissions	—	\$3220	—	—
Total Cost (\$157,720)	\$108,000	\$20,840	\$14,440	\$14,440
Total Patient Days (671)	465	82	62	62

- tric cooling, and pitressin therapy.
- c. Relatives or friends are briefed that the prognosis is extremely grave and that surgical intervention is not indicated.
 - d. Patients may be transfused with up to 1000 ml whole blood daily for two days after the initial resuscitation but are otherwise given intravenous fluids only as needed.
 - e. No special "heroic" measures are undertaken such as ventilatory support, renal dialysis, or cardiac resuscitation.
4. Individuals who fall outside the study group may be treated in whatever manner their physicians deem necessary.

The Results

The recommendations of the BEV Commission were put into practice in January, 1976, and results during the ensuing 24 months are shown in Table 3. Twenty-three patients were placed in the group during this period. Four patients were excluded from the study group and received surgical treatment. Of these, one was considered Child A risk and another advanced to Child A after initial resuscitation and cessation of bleeding. Two other patients were excluded from the study group on the basis of history. In one instance, the patient's wife commented that he was a "good father and provider" and asked specifically that an operation be performed. In the other patient, a reliable history of complete discontinuation of drinking for two months before illness was obtained.

TABLE 3
Study Group
(23 Patients)

	Died in Hospital (15)	Survived Initially (8)	Died Within 18 Months (5)	Alive (3)
Average Hospital Stay	10	21	—	—
Average Cost of Hos- pitalization	\$2500	\$5500	—	—
Cost of Subsequent Hos- pitalization	—	—	\$2500	—
Total Cost (\$94,000)	\$37,500	\$44,000	\$12,500	—
Total Patient Days (368)	150	168	50	—

TABLE 4
Excluded Group
(4 Patients)

	Died Within 30 Days (3)	Alive (1)
Average Hospital Days	31	31
Average Cost of Hospitalization	\$7200	\$7200
Total Cost (\$28,800)	\$21,600	\$7,200
Total Days (94)	63	31

Tabulation of data from this group (Table 3) shows that \$94,000 and 368 patient days were used to treat 23 patients. Three of the four patients operated on died within 30 days of surgery and the fourth remains well (Table 4). The total costs of both study group and excluded group were \$142,800 and 462 patient days.

Comparison of Tables 1, 2, 3, and 4 shows that notable differences existed between the two 24-month periods. Correcting for variations in group size, it was roughly \$1,465 per patient less expensive to treat esophageal bleeding under the BEV plan than during the control period. About nine hospital days less per patient were used under the BEV plan. The mortality experiences were similar.

The program at FCH was well received. It appeared to allow adequate opportunity for better risk patients to survive their illness and at the same time reduce per capita costs in dollars and hospital time . . . all at equal mortality. The immediate impact of the method was felt on the wards as beds were freed for use for badly needed elective surgery, and, indeed, for the first time in many years, some ward space was available to the plastic surgery service for hospitalization of patients for cosmetic procedures.

The funds saved by the plan were never recognizable because they were absorbed by increases in operating costs.

It is conceivable that had the program run longer its advantages might have become more obvious. The passage of the National Health Care Act (NHCA) in 1977 brought with it administrative impositions which necessitated that the plan be discontinued. Specifically, the act stated that public hospitals receiving federal funds under its provisions are not permitted to set local treatment policies unless approval

by the Regional Therapeutic Review Council is obtained. Additionally, the BEV program came under criticism by civil rights advocates on the basis of the Supreme Court decision in *Hurtz vs. Nevada* in 1977 which declared that beneficiaries of NHCA may not be denied operations which they request and which may be life-saving.

This presentation has been made chiefly for historical reasons because it represents one of the last examples of attempts made at the local level to manage a problem by discriminatory patient selection.

The current situation at FCH seems much as it was in 1975, in terms of ward crowding, blood bank depletion, and mortality for the treatment of esophageal bleeding. This evaluation is rather difficult to make, however, as house staff have all rotated and most of the faculty involved are now in private practice or have been promoted to regional positions under NHCA.

PHYSICIANS

Private practice (solo, partnerships, groups) opportunities exist in several communities within the state of Kentucky (Morganfield, Mayfield, Bowling Green, and Frankfort). As a public service to these communities, we are performing a free, no obligation, service acting as a liaison between physicians interested in practice opportunities and communities in need of their services. These communities have modern, JCAH approved hospitals, modern offices, and recognized needs for additional physicians.

For details call collect 615-327-9551 or write with C.V. to:

**E. J. Ryan, Jr., Corporate Director,
Medical Relations
Hospital Corporation of America
One Park Plaza
Nashville, Tennessee 37203**

NEW! Patient Therapy Packs

Because many patients tend to stop treatment prematurely, the full course of b.i.d. therapy is now specially packaged to encourage patients to complete the full course of therapy.

CANDEPTIN Vaginal Ointment Therapy Pack—two 75 gm. tubes

CANDEPTIN Vagettes Therapy Pack—28 vaginal capsules

CANDEPTIN Vaginal Tablet Therapy Pack—28 vaginal tablets

Brief Summary

Description: CANDEPTIN (Candididin) Vaginal Ointment contains a dispersion of Candididin powder equivalent to 0.6 mg. per gm. or 0.06% Candididin activity in U.S.P. petrolatum. 3 mg. of Candididin is contained in 5 gm. of ointment or one applicatorful. CANDEPTIN Vaginal Tablets contain Candididin powder equivalent to 3 mg. (0.3%) Candididin activity dispersed in starch, lactose and magnesium stearate.

CANDEPTIN VAGETTES Vaginal Capsules contain 3 mg. of Candididin activity dispersed in 5 gm. U.S.P. petrolatum.

Action: CANDEPTIN Vaginal Ointment, Vaginal Tablets, and VAGETTES Vaginal Capsules possess anti-moniilial activity.

Indications: Vaginitis due to *Candida albicans* and other *Candida* species.

Contraindications: Contraindicated for patients known to be sensitive to any of its components. During pregnancy manual Tablet or VAGETTES Capsule insertion may be preferred since the use of the ointment applicator or tablet inserter may be contraindicated.

Caution: During treatment it is recommended that the patient refrain from sexual intercourse or the husband wear a condom to avoid re-infection.

Adverse Reaction: Clinical reports of sensitization or temporary irritation with CANDEPTIN Vaginal Ointment, Vaginal Tablets or VAGETTES Vaginal Capsules have been extremely rare.

Dosage: One vaginal applicatorful of CANDEPTIN Ointment or one Vaginal Tablet or one VAGETTES Vaginal Capsule is inserted high in the vagina twice a day, in the morning and at bedtime, for 14 days. Treatment may be repeated if symptoms persist or reappear.

Available Dosage Forms: CANDEPTIN Vaginal Ointment is supplied in a Patient Therapy Pack, containing two 75 gm. tubes with two applicators for the full course of treatment. CANDEPTIN Vaginal Tablets are packaged in boxes of 28, in foil with inserter—enough for a full course of treatment. CANDEPTIN Vagettes Vaginal Capsules are packaged in a Patient Therapy Pack, containing 28 CANDEPTIN Vagettes Vaginal Capsules (2 boxes of 14), for the full course of treatment. Store under refrigeration to insure full potency.

Federal law prohibits dispensing without prescription.

References:

1. Melges, F. J.: *Obstet. Gynecol.* 24:921, Dec. 1964.
2. Cameron, P. F.: *Practitioner* 202:695, May 1969.
3. Olsen, J. R.: *Journal-Lancet* 85: 287, July 1965.
4. Giorlando, S. W.: *OB/GYN Digest* 13:32, Sept. 1971.
5. Decker, A.: Case Reports on file, Medical Department, Julius Schmid.
6. Friedel, H. J.: *Md. State Med. J.* 15:36, Feb. 1966.
7. Roberts, C. L. and Sullivan, J. J.: *Calif. Med.* 103:109, Aug. 1965.
8. Giorlando, S. W., Torres, J. F. and Muscillo, G.: *Am. J. Obstet. Gynecol.* 90:370, Oct. 1, 1964.
9. Abruzzi, W. A.: *Western Med.* 5:62, Feb. 1964.

Innovators in candididin therapy

SCHMID
LABORATORIES, INC.
LITTLE FALLS, NEW JERSEY 07424

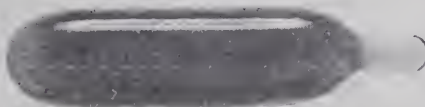
Candeptin[®]

(candicidin)

The highly effective
monilia-cide with
high cure rates
proved clinically.¹⁻⁹

- *the only candicidin available in three dosage forms* for complete therapeutic flexibility—even for adolescent and gravid patients.
- *Symptomatic relief* in many patients as early as 48-72 hours¹⁻³; usually cures in a single 14-day course of therapy.
- *Exact dosage assured* when used as directed.
- *High patient acceptability*, easy to use in all forms; helps keep patients on the full 14-day regimen—important in controlling recurrences.
- *Clinically proved*—CANDEPTIN Vaginal Ointment and Vaginal Tablets have more than nine years of clinical experience.
- Sensitivity and temporary irritation with CANDEPTIN (candicidin) Vaginal Ointment, Vaginal Tablets, and VAGELETTES Vaginal Capsules have been extremely rare.

And a dosage form for all your patients



VAGELETTES[™]
Vaginal Capsules



Vaginal Ointment



Vaginal Tablets

EDITORIALS

Priorities

IN this issue of *The Journal* Doctors Polk, Mays, Middleton, Knapp, et al. present a tripartite analysis of the surgical treatment of esophageal varices. The papers range from fact to whimsy, but the common conclusion seems to be that medical resources are not infinite, and that priorities must be established.

To the idealistic social planner the concept of various degrees of medical care is anathema. To anyone realistically viewing the problem, though, balancing our limited national reserves against an unlimited demand for "only the best" in health care requires establishment of some sort of selection process. In the past, the selection of medical care was quite often based on the patient's financial status—if he was unable to afford "the best," he sought limited care or none at all.

The system thus had a built-in check-valve against overload, at the patient level (the payor).

Now, with federal and other third party financing increasingly available, that check-valve is no longer operative, and individual demand for health care is naturally increasing rapidly. As costs rise, though, pressures are mounting from the current payors (government, insurance firms) for the introduction of management efficiencies into the previous "random" system, in the interests of cost-containment. Thus, selection processes and priority settings are still with us, but at a different level. Two major questions promptly arise: 1) Can the system be made more efficient, overall, and still care for patients as human beings? and 2) Who is to manage?

WHJ

Fixing Periods

I probably shouldn't be writing this, since I feel too obvious in attitude toward any consideration in medicine based on a materialistic viewpoint. As one who has been a trifle disturbed by economic sanctions placed on the hospital practice of medicine, I am guided by the concept that this country which can afford so much in so many things can afford a lot in health care. I am persuaded that the usual and customary patient wants the very best in consideration, comfort, and convenience.

This is written with admiration for the scenario described by the authors in the series of articles in this issue of *The Journal*. At least, admiration for the innovation of thought. Certainly the specific group of patients chosen comprise a most difficult and disappointing therapeutic group. Due to the most common etiology of portal cirrhosis this group is most frustrating to bring to salvation (salvage?).

The concept of utilization of medical re-

sources I would label a series of "soft" decisions. But the concept of application of medical resources and to whom is a "hard" decision. Many years ago Osler in his "Fixed Period" address alluded to the novel of that name in which Anthony Trollope's plot hinges upon a scheme in which, at age 60, men retired for a year of contemplation before a peaceful departure by chloroform. The postscript consists of the late pages of the novel: when the young men who designed the rule were getting older, they sought repeal.

While researching this editorial in "The Life of Sir William Osler," a copy of the Declaration of Geneva fell out of the book. My eyes fell on the following line: "I will maintain the utmost respect for human life, from the time of conception." Already we have seen erosion of this tenet on the front end of life. We must be fearful lest we erode it again on the other end. Personally, I'd rather cut down on the lab tests a little.

CCS



ORGANIZATION SECTION



1974 Annual Meeting to Feature Outstanding Speakers, Informative Topics, September 24-26

Well-known medical authorities from across the nation will participate with Kentucky physicians in the scientific program of the 1974 KMA Annual Meeting to be held September 24-26. The four general sessions will deal with the sexes, hypertension, fetal and neonatal health, and food facts and fads.



Doctor Vidt

Held at Ramada Inn and the Bluegrass Convention Center in Louisville, the 1974 session will also include meetings of 18 specialty groups, two meetings of the KMA House of Delegates, the President's Luncheon, technical and scientific exhibits, University of Louisville alumni reunions, the Annual Convention of the Woman's Auxiliary to KMA, and the annual KEMPAC Seminar.

The House of Delegates will meet on Monday morning, September 23 and Wednesday evening, September 25. The 1974 KMA President's Luncheon will feature Julian M. Carroll, Lieutenant Governor of Kentucky, as guest speaker. The Luncheon will take place September 25 at 11:50 a.m.

Scheduled for the Wednesday morning session on hypertension is Donald G. Vidt, M.D., Cleveland, whose topic will be "Hypertension: Why Do We Treat It?". Doctor Vidt is Vice-Chairman of the Division of Medicine at the Cleveland Clinic Foundation and head of its Clinical Section on Hypertension and Nephrology.

Also appearing on the Wednesday morning program will be Walter M. Kirkendall, M.D., Houston. Doctor Kirkendall, Professor and Director of the Program in Internal Medicine at the University of Texas Medical School, will speak on "Problems in the Treatment of the Hypertensive Patient." He is a member of the Scientific Council on Hypertension of the International Society of Cardiology.

Sprague A. Gardiner, M.D., Indianapolis, Professor of Obstetrics and Gynecology at Indiana University School of Medicine, will participate on the Wednesday afternoon program. His topic will be "Regionalization of Obstetric Care." Immediate Past President of the American College of Obstetricians and Gynecologists, Doctor Gardiner is a consultant on Infant Mortality Study of the Institute of Medicine, National Academy of Sciences.



Doctor Kirkendall



Doctor Gardiner

Information regarding other guest speakers and various aspects of the 1974 Annual Meeting will be carried in future issues of *The Journal*.

Nominations for KMA Awards Has July 15 Deadline

The deadline for receiving nominations for KMA's two top awards is July 15, according to Richard F. Grise, M.D., Bowling Green, Chairman of the Awards Committee.

The Distinguished Service Award is presented to a physician in Kentucky for his contribution to organized medicine in the form of membership and activity in a county medical society and the State Association. The award also is based on individual medical service; community health, education and civic betterment; medical research; and distinguished voluntary military service.

The Kentucky Medical Association Award is designed to honor a lay person for his outstanding accomplishments in the field of health and/or medical care.

All nominations should be sent to the KMA Headquarters Office and marked "Attention: Awards Committee." Presentation of the awards will take place during the President's Luncheon at 11:50 a.m., September 25, during the 1974 KMA Annual Meeting.

WATCH FOR
AUGUST JOURNAL
for Annual Meeting Details

Two Trustee Districts Hold Meetings During June

Two more Trustee Districts held meetings during the month of June. The Fourth District annual meeting originally scheduled for April 4, was cancelled due to the recent tornado disaster. The meeting was rescheduled for June 6 in Elizabethtown and Hoyt D. Gardner, M.D., Louisville, KMA President-Elect, and David A. Hull, M.D., Lexington, President of the Kentucky Foundation for Medical Care, were guest speakers for the meeting. W. Bruce Hamilton, M.D., Shepherdsville, is Trustee of the District.

On June 11 the Tenth District met in Lexington. Doctor Hull, Trustee of the Tenth District, discussed PSRO activities and its current status.

A total of eight Trustee Districts have held annual meetings during the 1973-74 Associational Year.

KMA Physicians Host Dinner For Kentucky Congressmen

The Kentucky Medical Association hosted its 17th Annual Washington Dinner on May 14. Invited to the dinner and reception were both of Kentucky's U. S. Senators and all the U. S. Representatives from Kentucky. Administrative assistants of the Congressmen also attended.

On Monday afternoon, May 13, a briefing session was held for those in attendance at the AMA Washington Office. John Farrell, M.D., Assistant to the Director of the Office of Professional Standards Review, was present for a discussion on PSRO. Visits were made on an individual basis with all the members of Kentucky's Congressional delegation.

Fred C. Rainey, M.D., Elizabethtown, President of KMA, and Hoyt D. Gardner, M.D., Louisville, Chairman for National Affairs of the KMA Committee on Legislative Activities, express their appreciation to the 15 physicians and wives who attended the Annual Washington Dinner.

KMA Public Relations Committee Seeks Physician Volunteers

The KMA Public Relations Committee will sponsor an exhibit at the 1974 Kentucky State Fair at which blood pressures will be taken with an automatic cuff and a small disk denoting blood pressure will be given to each individual for his personal record. Members of the Woman's Auxiliary to KMA who are registered nurses will be taking the blood pressures.

The Committee feels that the best public relations can be obtained by having a physician member of KMA present to chat briefly with individuals who have abnormal blood pressures. Members of the Committee have all volunteered to be available during undesirable four-hour periods. If any KMA member feels he can give four hours to the Association at the 1974 State Fair, August 15-24, it would be appreciated if he would contact the Headquarters Office and select a time which would be convenient.

In Memoriam

JOSEPH S. PARKER, M.D. Louisville 1902-1974

Joseph Skees Parker, M.D., died on April 18 at the age of 71. A 1926 graduate of the University of Louisville School of Medicine, Doctor Parker was formerly chief anesthesiologist at St. Joseph Infirmary and belonged to the American Society of Anesthesiologists. He was also an emeritus member of the Jefferson County Medical Society, as well as the Kentucky and American medical associations.

ROBERT L. SUTTLES, M.D. Owingsville 1933-1974

Robert L. Suttles, M.D., died on April 7 at the age of 41. A 1962 graduate of the University of Louisville School of Medicine, Doctor Suttles was a general practitioner. He belonged to the Bath County Medical Society, as well as the Kentucky Medical Association.

FELIX M. BROWN, M.D. Hopkinsville 1898-1974


Felix Manning Brown, M.D., 76, died on April 8. A 1924 graduate of Vanderbilt University School of Medicine, Doctor Brown practiced internal medicine in Hopkinsville until his retirement in 1969. He was an emeritus member of the Kentucky and American medical associations.

ROBERT H. JOHNSON, M.D. Louisville 1898-1974

Robert Hays Johnson, M.D., died on May 2 at the age of 75. A general practitioner in Louisville since 1928, Doctor Johnson graduated from Tulane University School of Medicine in 1924. He was a member of the American Academy of Family Physicians and the Southern Medical Association. He also belonged to the Jefferson County Medical Society and the Kentucky Medical Association.

OSCAR ALLEN, M.D. Beaver Dam 1882-1974

Oscar Allen, M.D., died on May 15 at the age of 92. A general practitioner, Doctor Allen was a 1905 graduate of Kentucky University. He was an emeritus member of the Kentucky and American medical associations.



Baby's fine,



**but mother
still hurts.**

After episiotomy or Caesarean section, Empirin® Compound with Codeine every four hours can help to keep mother comfortable.

Empirin Compound with Codeine is available in dosage strengths to relieve all degrees of moderate to severe pain, up to that requiring morphine or its equivalent, and is effective for visceral as well as musculoskeletal pain. The codeine component provides an antitussive bonus, when coughing could put unwanted stress on sutures.

C **prescribing convenience:** up to 5 refills in 6 months, at your discretion (unless restricted by state law); by telephone order in many states.

Empirin Compound with Codeine **No. 3**, codeine phosphate* 32.4 mg. (gr. ½); **No. 4**, codeine phosphate* 64.8 mg. (gr. 1).
*Warning—may be habit-forming. Each tablet also contains: aspirin gr. 3½, phenacetin gr. 2½, caffeine gr. ½.

**Empirin®
Compound
c Codeine**

#3, codeine phosphate* (32.4 mg.) gr. ½
#4, codeine phosphate* (64.8 mg.) gr. 1

Digest of Proceedings, Board of Trustees April 11, 1974

The third regular meeting of the KMA Board of Trustees was held on April 11, 1974, at the KMA Headquarters Office. The President's Report and Headquarters Office Report were reviewed and accepted for information at the start of the meeting.

Three proposals for Bylaws changes were approved by the Board and referred to the Committee on Constitution and Bylaws. The first dealt with representation of one student delegate from the University of Louisville and the University of Kentucky to the KMA House of Delegates with the privilege of one vote each. The second recommendation would allow candidates for the offices of KMA President and Vice-President to seek office at large. The third proposal concerned the Nominating Committee.

The 1974-75 proposed budget was presented after previously being approved by the Budget Committee and the Executive Committee. The Board approved the Budget as submitted.

The Kentucky Foundation for Medical Care report was presented by KFMC President, David A. Hull, M.D., Lexington. The Board voted to enlarge the KFMC Board, to establish the Kentucky Peer Review Organization, and to submit a planning grant proposal for this free-standing statewide organization. (Details on KPRO can be found in the May Communicator and the May issue of *The Journal*.)

William P. McElwain, M.D., Frankfort, presented a report from the Kentucky Board of Medical Licensure and a detailed report was given by Commissioner Gail Huecker of the Bureau of Social Insurance on the Title XIX Program.

The Board approved implementation of a centralized dues billing process whereby the KMA Headquarters Office would bill for county society dues, when requested, except for Jefferson and Fayette, as well as KMA and AMA dues.

The Board nominated physicians to serve on several state councils and boards and forwarded them to the Governor for appointment.

Committee action and recommendations to the Board were as follows: 1) *Legislative Activities Committee* reported on the Washington Dinner to be held May 13 and 14 and referred Board members to a detailed report distributed to them concerning recent state Legislative activities. 2) *Business Management and Services Committee* made recommendations regarding disability insurance for physicians and umbrella insurance coverage. These recommendations were approved. 3) *Public Relations Committee* reported on the "Workshop for New Physicians" in April and the office assistants seminars set for June 13 and July 17.

AMA-ERF checks, totaling \$14,002.47, were presented to the deans of the two medical schools. The Board also endorsed the candidacy of Hoyt D. Gardner, M.D., Louisville, for membership on the AMA Board of Trustees.

Board approval was given to a recommendation to Kentucky physicians not to accept federal funds for services rendered for emergency care during the

recent tornado disaster. Distribution of this action was to be made through the AMA, the press and publications of the Association. A special letter was also sent to each KMA member informing them of this action.

The date of the next meeting of the KMA Board of Trustees was set for August 15, 1974, at the KMA Headquarters Office.



(top photo) Arthur H. Keeney, M.D. (left) Dean of the University of Louisville School of Medicine, accepts a check in the amount of \$8,999.68 from the American Medical Association Education and Research Foundation from Fred C. Rainey, M.D. (right) KMA President.

(bottom photo) Doctor Rainey (right) presents the AMA-ERF check in the amount of \$5,002.79 to William S. Jordan, M.D. (left) Dean of the University of Kentucky College of Medicine. Both presentations were made at the April 11 meeting of the KMA Board of Trustees in Louisville.

Just a Reminder —

**123rd AMA ANNUAL
CONVENTION
JUNE 22-26, 1974**

McCORMICK PLACE, CHICAGO

- Scientific sessions
- Postgraduate courses
- Fireside forums
- Film symposia

P. Lee Agency INSURERS OF PROFESSIONAL GROUPS SINCE 1939

631 LINCOLN FEDERAL BUILDING — 600 SOUTH 4TH STREET — LOUISVILLE, KENTUCKY 40202

Disability Insurers for: *Kentucky Medical Association*
 Jefferson County Medical Society
 Kentucky Dental Association
 Kentucky Bar Association
 Kentucky Society of CPA
 Jefferson County Academy of Pharmacy

WE ARE PROUD to add the Kentucky Medical Association to the top of our list of endorsed groups.

Recently you should have received in the mail, a brochure from your Business Management and Services Committee describing the coverage offered. We are in the midst of an open enrollment which means that every member under age 56 is entitled to some coverage "WITHOUT EVIDENCE OF INSURABILITY".

It is physically impossible for us to see everyone during the sixty (60) day period. If for some reason you did not receive the information, or have some question, please call or write.

E. W. Ernst, Jr., Administrator • Ray D. Jones, Associate
(502) 583-1888



POSTGRADUATE OPPORTUNITIES



SEND IN MEETING INFORMATION

Many medical organizations are setting dates for their fall and winter meetings. At the same time they are choosing the topics to be discussed, arranging for speakers and planning programs.

The Continuing Medical Education office of the Kentucky Medical Association would like to urge these societies and organizations to notify this office of these dates and topics so they can be added to the "Continuing Education Opportunities" calendar in *The Journal*. In this way conflicts in dates can be avoided and a wider audience can be informed of these upcoming meetings.

Please send such information, when available, to the KMA Continuing Medical Education Office, 3532 Ephraim McDowell Drive, Louisville, Ky. 40205.

IN KENTUCKY

JUNE

- 17-18 "Colposcopy and the Cytologically Suspect Uterine Cervix,*" University of Kentucky College of Medicine, Registration: \$250, Lexington Hilton Hotel, Lexington

JULY

- 17 "Patient/Public Relations Seminar for the Office Assistant," KMA-sponsored. Holiday Inn North, Lexington
- 19-20 KAFP Park Mammoth Seminar, "Diabetes and Related Complications," Park City

SEPTEMBER

- 15-21 Fifth Family Medicine Review*, University of Kentucky Medical Center, Registration fee: \$195; Lexington
- 24-26 KMA Annual Meeting, Ramada Inn/Bluegrass Convention Center, Louisville

OCTOBER

- 6-12 Fifth Family Medicine Review*, University of Kentucky Medical Center, Registration fee: \$195; Lexington

*For further information contact Ronald D. Hamilton, M.D., Director, Continuing Education, College of Medicine, University of Kentucky, Lexington 40506

IN SURROUNDING STATES

JUNE

- 22-27 Annual Convention, American Medical Association, McCormick Place, Chicago

SCHEDULE OF UPCOMING PROGRAMS NETWORK FOR CONTINUING MEDICAL EDUCATION

(For listing of stations, see October issue, page 676)

June 17-July 14

LICE, MITES, AND MAN, Silas O'Quinn, M.D., Dermatologist and Dean of Medicine; and Harold Trapido, M.D., Professor of Tropical Medicine and Medical Parasitology; both of Louisiana State University Medical Center, New Orleans.

ULTRASONIC IMAGING: ECHOES WITH ANSWERS, Barry Goldberg, M.D., Assistant Professor of Radiology, Temple University Health Sciences Center.

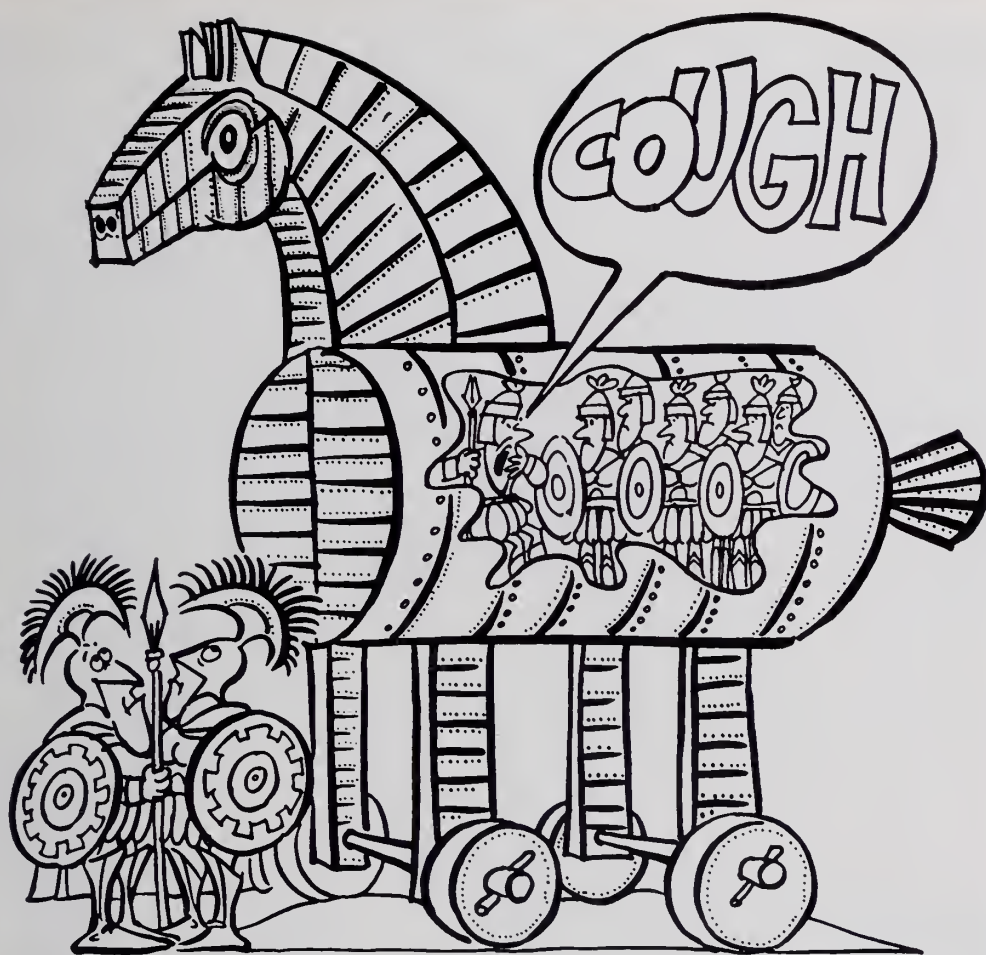
LONG-TERM PACEMAKER THERAPY, Doris J.W. Escher, M.D., Attending Physician, Department of Medicine, Cardiology Division and Physician-In-Charge, Cardiac Catheterization Unit; and Seymour Furman, M.D., Associate Attending Surgeon Department of Cardiothoracic Surgery; both of Montefiore Hospital and Medical Center, New York.

M.D. Recruitment

Physician opportunities with HealthCare of Louisville, Inc., a developing prepaid group practice (H.M.O.). Board certified or qualified family physicians, internists, and pediatricians. Must be Kentucky licensed. Must be qualified for hospital staff appointment. Salary plus attractive fringe benefits depending upon qualifications and experience.

Direct inquiries to:

HealthCare of Louisville, Inc.
Fincastle Building—Suite 419
Louisville, Kentucky 40202
583-4826
After June 1, 774-5711



When a cough spoils your patient's day...

Triaminic® Expectorant

Each teaspoonful (5 ml.) contains:

Triaminic, 25 mg. (phenylpropanolamine hydrochloride, 12.5 mg.; pheniramine maleate, 6.25 mg.; pyrilamine maleate, 6.25 mg.); glyceryl guaiacolate, 100 mg.; alcohol, 5%.

Available in 8-oz. Family Size and 4-oz.

No Rx needed—recommend over the phone.

**The Adult Expectorant
that is great for kids, too.**

Dorsey Laboratories/Division of Sandoz-Wander, Inc./Lincoln, Nebraska 68501

BO-SD



EYES RIGHT! ...to SOUTHERN OPTICAL

LOUISVILLE Southern Optical Bldg. — 640 S. 4th
Contact Lenses — 640 S. 4th
Medical Towers Bldg., Floyd & Gray
Doctors Office Bldg., Liberty at Floyd
Medical Arts Bldg., 1169 Eastern Parkway
Professional Bldg. East, 3101 Breckinridge Lane
Medix Bldg. — Adj. S.S. Mary & Elizabeth Hosp.

ST. MATTHEWS 313 Wallace Center and 108 McArthur Drive

NEW ALBANY Professional Arts Bldg., 1919 State Street

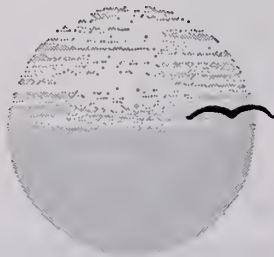
BOWLING GREEN 524 East Main Street

OWENSBORO Doctors Bldg., 1001 Center Street



*Southern
Optical*

CHARGE ACCOUNTS
INVITED
BankAmericard
Master Charge



SKYWAY ENTERPRISES, INC.

Executive Air Charter Service

Home Office 269-1413/Flight Operations 255-6923
Lexington's Bluegrass Field/ Air Associates Termin

**All of these mammals, except one,
can synthesize vitamin C**



Woman (man) cannot.

Human beings can neither synthesize vitamin C nor store most of the water soluble vitamins. They should be replenished continuously.

Normally, people accomplish this in their daily diet. But under conditions of illness, stress, inconvalescence or following surgery, vitamin stores may be depleted or metabolic demands increased.

In such cases, Surbex-T may be indicated. Surbex-T makes it easy and convenient to restore the water-soluble vitamins. Each tablet provides 500 mg. of vitamin C plus high potency B-complex.

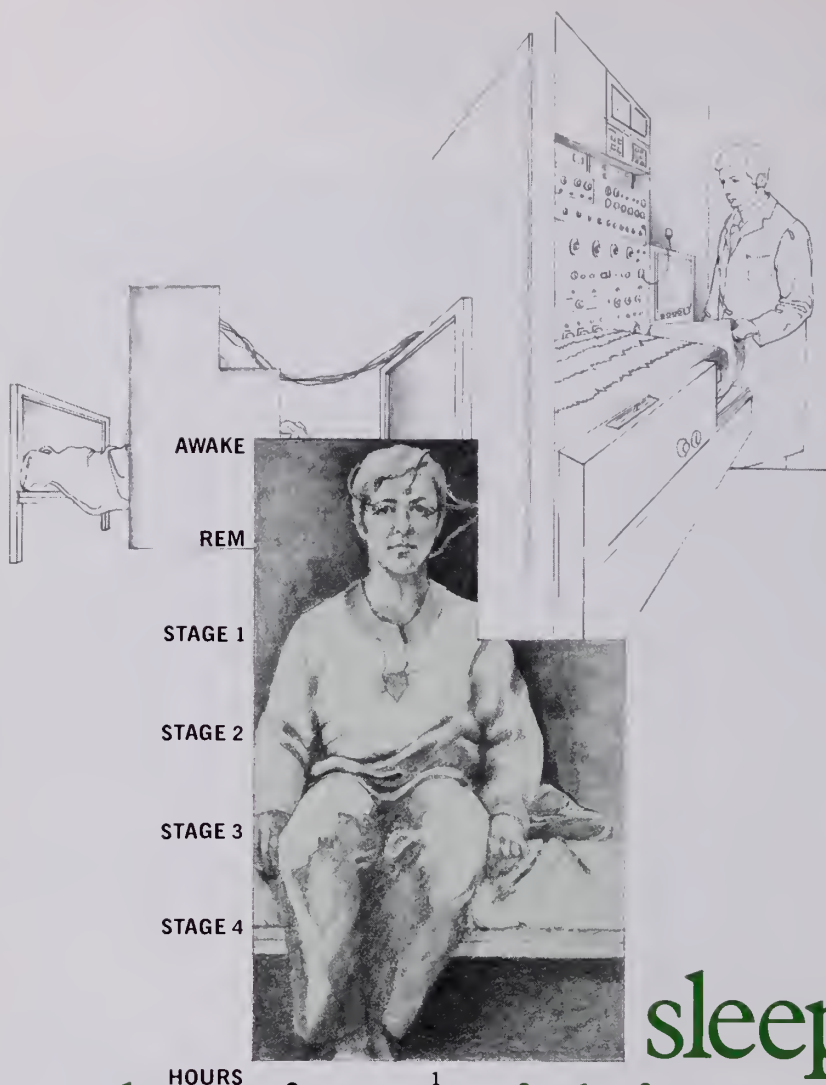
Where nutritional status must be preserved, Surbex-T can help restore what the body *cannot* effectively store.

403482



SURBEX-T[®] 500 mg. of Vitamin C with High Potency B-Complex

Restores what the body cannot effectively store



sleep
begins within
17 minutes, on average ...
an initial benefit of

Dalmane[®]
(flurazepam HCl) **proved by a**
22-night clinical study of insomnia patients
in the sleep research laboratory and at home¹

Three insomnia patients selected for difficulty falling asleep were administered Dalmane (flurazepam HCl) 30 mg for 14 consecutive nights. Placebo was given for four nights prior to and four nights after Dalmane. Physiologic tracings on Dalmane nights 1-3 showed sleep induction time averaged 13.90 minutes; on Dalmane nights 12-14, 18.80 minutes. Combined average for the 6 monitored drug nights was 16.35 minutes.¹

Time Required
to Fall Asleep (4 Studies,
Subjects²⁻⁵)



confirmed by clinical studies in four geographically separated sleep research laboratories²⁻⁵

Using a 14-night protocol involving eight insomniac and eight normal subjects, four studies confirmed the sleep-inducing effectiveness of Dalmane (flurazepam HCl) and the reproducibility of this response. On average, one 30-mg capsule induced sleep within 17 minutes. In all these studies, Dalmane induced sleep rapidly, reduced nighttime awakenings, and provided 7 to 8 hours of sleep without repeating dosage²⁻⁵

Dalmane (flurazepam HCl) induces and maintains sleep, with relative safety

Dalmane is generally well tolerated; morning "hang-over" has been relatively infrequent. While dizziness, drowsiness, lightheadedness and the like have been reported most often, particularly in the elderly and debilitated, physicians should be aware of the possibility of more serious reactions, as noted below.

When prescribing Dalmane (flurazepam HCl), please consult Complete Product Information, a summary of which follows:

Indications: Effective in all types of insomnia characterized by difficulty in falling asleep, excessive nocturnal awakenings and/or early morning awakening; in patients with recurring insomnia or poor sleeping habits; and in acute or chronic medical situations requiring restful sleep. Since insomnia is often transient and intermittent, prolonged administration is generally unnecessary or recommended.

Contraindications: Known hypersensitivity to flurazepam HCl.

Warnings: Caution patients about possible combined effects with alcohol and other CNS depressants. Caution against hazardous occupations requiring complete mental alertness while operating machinery, driving). Use in women who are or may become pregnant only when potential benefits have been weighed against possible hazards. Not recommended for use in children under 15 years of age. Though physical and psychological dependence have not been observed on recommended doses, use caution in administering to alcohol-prone individuals or those who might increase dosage.

Precautions: In elderly and debilitated, initial dosage should be reduced to 15 mg to preclude oversedation, dizziness and/or ataxia. Caution when combined with other drugs having hypnotic or CNS-depressant effects. Consider potential additive effects. Employ usual precautions in patients who are severely depressed, or with latent depression or suicidal tendencies. Periodic blood counts and liver and kidney function tests are advised during repeated therapy. Observe usual precautions in presence of impaired renal or hepatic function.

Adverse Reactions: Dizziness, drowsiness, lightheadedness, ataxia, and falling have occurred, particularly in elderly debilitated patients. Severe sedation, lethargy, disorientation and probably indicative of drug intolerance or overdosage, have also been reported. Also reported were headache, heartburn, upset stomach, nausea, vomiting, diarrhea, constipation, GI pain, nervousness, irritability, apprehension, irritability, weakness, palpitations, tremors, body and joint pains and GU complaints. There have been rare occurrences of sweating, flushes, difficulty in focusing, blurred vision, burning eyes, faintness, hypotension, shortness of breath, pruritus, skin rash, dry mouth, bitter taste, excessive salivation, anorexia, euphoria, depression, slurred speech, confusion, hallucinations, and elevated SGOT, SGPT, total and conjugated bilirubins and alkaline phosphatase. Paradoxical reactions, such as excitement, stimulation and hyperactivity, have also been reported in rare instances.

Dosage: Individualize for maximum beneficial effect. *Adults:* 30 mg capsule h.s.; 15 mg may suffice in some patients. *Elderly or debilitated patients:* 15 mg initially until response is determined.

Formulation: Capsules containing 15 mg or 30 mg flurazepam HCl.

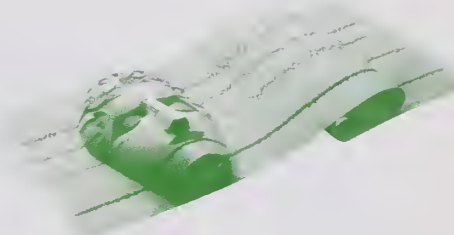
References: 1. Kales A, et al: *Arch Gen Psychiatry* 23:226-232, Sep 1970

2. Lean I, Williams RL, Smith JR: The sleep laboratory in the investigation of sleep and sleep disturbances. Scientific exhibit at the 124th annual meeting of the American Psychiatric Association, Washington DC, May 3-7, 1971

3. JD Jr: Data on file, Medical Department, Hoffmann-La Roche Inc, Nutley NJ

4. GW: Data on file, Medical Department, Hoffmann-La Roche Inc, Nutley NJ

5. WC: Data on file, Medical Department, Hoffmann-La Roche Inc, Nutley NJ



when restful sleep is indicated

Dalmane[®] (flurazepam HCl)

One 30-mg capsule h.s. — usual adult dosage (15 mg may suffice in some patients).

One 15-mg capsule h.s. — initial dosage for elderly or debilitated patients.

- induces sleep within 17 minutes, on average
- reduces nighttime awakenings
- sustains sleep 7 to 8 hours, on average, without repeating dosage

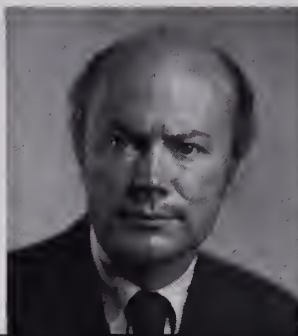
ROCHE

ROCHE LABORATORIES
Division of Hoffmann-La Roche Inc.
Nutley, New Jersey 07110

Opinion & Dialogue

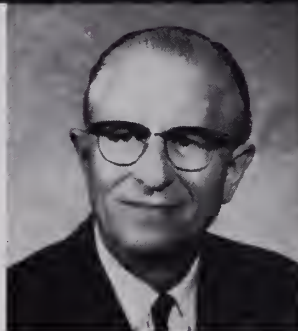
Government Health Official

Henry E. Simmons, M.D.
Deputy Assistant
Secretary for Health
Department of Health,
Education and Welfare



Maker of Medicine

Joseph F. Sadusk, Jr., M.D.
Warner-Lambert Company



Is there a need for a drug compendium?

A drug compendium of the type I envision would fill a definite need for the practicing physician, give him the information necessary for

a drug intelligently, and it would do so in a clear, concise, convenient, objective and balanced fashion.

What a Compendium Should Contain

I believe the compendium should inform the doctor what drug will do, when he should use it for what type of patient, for how long, in what dose, what benefits his patient is likely to obtain, the risks involved, and cross-reactions with other drugs.

The information would be based on the package insert and have the same legal status. A complete compendium will be complete and current information might even eliminate the need

A drug compendium preferably compendia, should believe, be private, not federal sponsorship. They should contain comprehensive listings of drugs available for prescribing. They should be single, legible print volumes of reasonable size, dated quarterly or semiannually and completely revised every

Function of a Compendium

A compendium should furnish the following information: drugs in the following order: indications for use, side effects, drug reactions, contraindications, drug interactions, drug dosage forms, market prices should not be included because they vary so widely and change rapidly.

No compendium should set forth drugs of choice or discuss relative efficacy. Such questions must be left for the practicing physician to decide, whether on the basis of the medical literature, his own clinical experience, advice from colleagues, information supplied by manufacturers, and so on.

Nor should a compendium undertake to educate the physician how to use drugs. Rather, it should be a reference source designed primarily to refresh his memory of drugs he may not use regularly.

package insert in many instances. This would constitute a substantial saving for the manufacturer.

By a complete compendium, I do not mean a volume of prohibitive size. You don't need a book describing 25,000 products with enormous amount of repetition. Rather, drugs should be arranged in a logical class. Mutually applicable information would be provided, along with brief discussions pinpointing differences in specific drugs of a class. Listings would be cross-indexed in a useful way.

Available Documents as Sources of Information

Existing references such as the AMA Drug Evaluation are obviously useful but they are incomplete. Either they are not cross-referenced by generic name or do not group drugs with similar characteristics, or they do not list the available and legally marketed drugs. And some of the omitted may be very useful.

It in no way imply control over a practitioner's prerogatives.

Another Compendium?

A practicable, single-volume compendium cannot, nor is it necessary to, include all drugs on the market today. From my practice of internal medicine for some years, my experience as a consultant, and as a faculty member for five medical schools, I estimate that a doctor uses 30 to 35 drugs regularly. The Physicians' Desk Reference, currently, contained about 50 entries.

As to whether there should be a federal compendium, in my opinion as stated earlier, the answer is no—there should *not* be one. The usual assumption that existing compendia are inadequate. We're not aware of that at all. Whatever its imperfections, the present drug information system in the U.S. is a multifaceted, pluralistic and responsive. Good compendia exist, as well as other ample sources on drug therapy, ranging from journal literature through AMA Drug Evaluation to company materials. Not all physicians may use such sources as often or as well as they should, but that is the fault of the user, not of the sources.

In any event, rather than pro-

On the other hand, drugs made by more than one supplier, tetracycline for example, may be fully described a dozen times in the same book.

While perhaps PDR could be rearranged and cross-indexed with generics included, and while the AMA Drug Evaluation might also be modified and expanded, I am not sure that the end result would have all the attributes required for a useful compendium. At the same time, you would run the risk of amassing a voluminous and unwieldy tome.

Should Editorial Comments Accompany the Listings?

Subjective judgments, in my opinion, have no place in a compendium. However, if there is substantial evidence based on a sound body of science concerning relative efficacy of several drugs, certainly that information should be included. The committee of experts compiling and editing a particular section would also have to assess

and indicate instances where a meaningful difference between drugs is pertinent.

duce another book, it makes much more sense to work on improving existing compendia, and perhaps they could, as knowledge advances, include more accumulated clinical data and experience, and more information on drug interactions and adverse reactions.

Implications of a Federal Compendium

Take a hard look at the implications of a federal compendium. It would have the force of law, virtually dictating what drugs to use and how to use them. In effect, it would be a regulatory document with legal or quasi-legal status, posing medical/legal problems similar to those the doctor may now encounter if and when he departs from the provisions of the package insert. A compendium under federal aegis would tend to restrict decisions on drug therapy to one orthodox level—a most dangerous trend for medicine.

New Compendium—A Medical Option

I detect no ground swell of initiative or support whatsoever for a federal compendium—or, for that matter, for a new compendium of any type. A 1969 PMA survey conducted by Opinion Research Corporation found that only 15 per

Sponsorship, Compilation and Editing

Producing a book like this would undoubtedly be difficult and demanding. It would obviously take a great deal of talent and expertise, and would require a varied and experienced group, ranging from writers and editors to highly skilled clinicians and pharmacologists. Style, format and clarity of language would play an important part in determining the usefulness of the book. And it should be updated periodically and completely revised annually.

I have no opinion whether the government or the private sector should sponsor and/or finance the compendium. What is most important is that the compendium be an authoritative, objective and useful source of information for the doctor to have at hand as a ready reference.

cent of those physicians interviewed felt a new compendium was needed. And a large majority did not favor the involvement of the federal government if one were to be created, preferring instead a nongovernmental consortium.

Even if we come to a time when the medical profession itself opts for a new kind of compendium, it should be handled and financed, ideally, outside both government and industry. Final review and editorial authority could be delegated, say, to specialty bodies and medical societies—but above all, *not* the government.

Surely the health care system in the United States has far more vital matters to consider than the extensive cost and effort that would have to go into the preparation and maintenance of a new, monolithic compendium, and especially one bearing the imprimatur of the federal government.

Opinion & Dialogue

What is your opinion, doctor? We would welcome your comments.

The Pharmaceutical Manufacturers Association
1155 Fifteenth Street, N.W.
Washington, D.C. 20005





Why is Gantanol[®] (sulfamethoxazole) basic therapy in nonobstructed urinary tract infections?

Before prescribing, please consult complete product information, a summary of which follows:

Indications: Acute, recurrent or chronic, nonobstructed urinary tract infections (primarily pyelonephritis, pyelitis and cystitis) due to susceptible organisms. **Note:** Carefully coordinate *in vitro* sulfonamide sensitivity tests with bacteriologic and clinical response; add aminobenzoic acid to follow-up culture media. The increasing frequency of resistant organisms limits the usefulness of antibacterials including sulfonamides, especially in chronic or recurrent urinary tract infections. Measure sulfonamide blood levels as variations may occur; 20 mg/100 ml should be maximum total level.

Contraindications: Sulfonamide hypersensitivity; pregnancy at term and during nursing period; infants less than two months of age.

Warnings: Safety during pregnancy has not been established. Sulfonamides should not be used for group A beta-hemolytic strep-

tococcal infections and will not eradicate vent sequelae (rheumatic fever, glomerulonephritis) of such infections. Deaths from hypersensitizations, agranulocytosis, aplastic anemia and other dyscrasias have been reported and early clinical signs (throat, fever, pallor, purpura or jaundice) may indicate blood disorders. Frequent CBC and urinalysis with microscopic examination are recommended during sulfonamide therapy. Sufficient data on children under six with chronic renal disease are not available.

Precautions: Use cautiously in patients with impaired hepatic function, severe allergy, bronchial asthma; in glucose-6-phosphate dehydrogenase-deficient individuals in whom related hemolysis may occur. Maintain adequate fluid intake to prevent crystalluria and stone formation.

Adverse Reactions: Blood dyscrasias (agranulocytosis, aplastic anemia, thrombocytopenia, leukopenia, hemolytic ane-

Because it is considered a good choice...

- for efficacy in nonobstructed cystitis, pyelonephritis and pyelitis
- for control of susceptible *E. coli*, *Klebsiella-Aerobacter*, *Staph. aureus*, *Proteus mirabilis* and, less frequently, *Proteus vulgaris*
- for prompt antibacterial blood and urine levels in from 2 to 3 hours after initial 2-gram adult dose
- for economical around-the-clock coverage
- for maximum patient cooperation with easy-to-remember B.I.D. dosage

Basic Therapy **Gantanol[®]** (sulfamethoxazole) Tablets/Suspension (0.5 Gm) (0.5 Gm/teasp.)

hypoprothrombinemia and methemoglobinemia); *allergic* reactions (erythema multiforme, skin eruptions, epidermal necrolysis, serum sickness, pruritus, exfoliative dermatitis, anaphylactoid reactions, periorbital edema, conjunctival and scleral edema, photosensitization, arthralgia and allergic myocarditis); *gastrointestinal reactions* (nausea, emesis, abdominal pains, hepatic dysfunction, diarrhea, anorexia, pancreatitis and stomatitis); *CNS reactions* (headache, peripheral neuritis, mental depression, convulsions, hallucinations, tinnitus, vertigo and insomnia); *miscellaneous* reactions (drug fever, chills, toxic nephrosis with oliguria and periarthritis nodosa and L.E. phenomenon). Due to certain structural similarities with some goitrogens, diuretics (acetazolamide, furosemide) and oral hypoglycemic agents, sulfonamides have caused rare instances of goiter production, diuresis and hypoglycemia as well as thyroid malignancies in rats following long-term administration. Cross-sensitivity with these agents may exist.

Dosage: Systemic sulfonamides are contraindicated in infants under 2 months of age (except adjunctively with pyrimethamine in congenital toxoplasmosis).


Usual adult dosage: 2 Gm (4 tabs or teasps.) initially, then 1 Gm b.i.d. or t.i.d. depending on severity of infection.

Usual child's dosage: 0.5 Gm (1 tab or teasps.)/20 lbs of body weight initially, then 0.25 Gm/20 lbs b.i.d. Maximum dose should not exceed 75 mg/kg/24 hrs.

Supplied: Tablets, 0.5 Gm sulfamethoxazole; Suspension, 0.5 Gm sulfamethoxazole/teaspoonful.



Roche Laboratories
Division of Hoffmann-La Roche Inc.
Nutley, N.J. 07110



N123

An important symbol to recognize

The double-pointed red arrow is the symbol for the BLUE SHIELD® RECIPROCITY SYSTEM. It's a national claims processing system for paying Blue Shield claims for eligible out-of-state subscribers.

The red double-pointed arrow, carrying a number within it, will be found in the upper left-hand corner of the subscribers identification card. Simply fill out the familiar Kentucky Blue Shield claim form, indicate the number within the arrow as a prefix to the subscriber's certificate number and send it to Kentucky Blue Shield for processing.

Only certain employee groups have benefits under this system.

A general mailing is being sent to all Kentucky physicians' offices providing specific details about the program. Questions regarding the new system should be directed to the Professional Relations Division.



**Blue Shield
of Kentucky**

KENTUCKY PHYSICIANS MUTUAL, INC.
FOR SURGICAL-MEDICAL CARE

The Bactrim^{T.M.} edge

Each tablet contains 80 mg trimethoprim and 400 mg sulfamethoxazole.

A high assurance of clinical efficacy

- in cystitis, pyelonephritis and pyelitis diagnosed as chronic
- against susceptible strains of the common urinary tract pathogens, usually *E. coli*, *Klebsiella-Enterobacter*, *Proteus mirabilis*, and, less frequently, indole-positive proteus species.



Before prescribing, please consult complete product information, a summary of which follows:

Indications: Chronic urinary tract infections (primarily pyelonephritis, pyelitis and cystitis) due to susceptible organisms (usually *E. coli*, *Klebsiella-Enterobacter*, *Proteus mirabilis*, and, less frequently, indole-positive proteus species).

The increasing frequency of resistant organisms and the usefulness of antibacterials, especially in chronic and recurrent urinary tract infections.

Contraindications: Hypersensitivity to trimethoprim-sulfonamides; pregnancy; nursing mothers.

Warnings: Deaths from hypersensitivity reactions, agranulocytosis, aplastic anemia and other blood dyscrasias have been associated with sulfonamides. Experience with trimethoprim is much more limited but a bone marrow interference with hematopoiesis has been reported as well as an increased incidence of thrombocytopenia in elderly patients on diuretics, primarily furosemide. Sore throat, fever, pallor or jaundice may be signs of serious blood disorders. Frequent CBC's recommended; therapy should be discontinued if a significantly reduced count of any formed blood element is noted. Data are insufficient to recommend use in infants and children under 12.

Precautions: Use cautiously in patients with impaired renal or hepatic function, possible folate deficiency, asthma or bronchial asthma; and in those with glucose-6-phosphate dehydrogenase deficiency, where hemolysis may occur. During therapy, maintain adequate fluid intake and perform frequent urinalyses, with microscopic examination, and renal function tests, particularly where there is impaired renal function.

Adverse Reactions: All major reactions to sulfonamides and trimethoprim are included, even if not associated with Bactrim. *Blood dyscrasias:* Agranulocytosis, aplastic anemia, megaloblastic anemia, thrombocytopenia, leukopenia, hemolytic anemia, purpura, prothrombinemia and methemoglobinemia. *Other reactions:* Erythema multiforme, Stevens-Johnson syndrome, generalized skin eruptions, epidermal necrolysis, urticaria, serum sickness, pruritus,

exfoliative dermatitis, anaphylactoid reactions, peri-orbital edema, conjunctival and scleral injection, photosensitization, arthralgia and allergic myocarditis. *Gastrointestinal reactions:* Glossitis, stomatitis, nausea, vomiting, abdominal pains, hepatitis, diarrhea and pancreatitis. *CNS reactions:* Headache, peripheral neuritis, mental depression, convulsions, ataxia, hallucinations, tinnitus, vertigo, insomnia, apathy, fatigue, muscle weakness and nervousness. *Miscellaneous reactions:* Drug fever, chills, toxic nephrosis with oliguria and anuria, periarteritis nodosa and L.E. phenomenon. Due to certain chemical similarities to some goitrogens, diuretics (acetazolamide, thiazides) and oral hypoglycemic agents, sulfonamides have caused rare instances of goiter production, diuresis and hypoglycemia in patients; cross-sensitivity with these agents may exist. In rats, long-term therapy with sulfonamides has produced thyroid malignancies.

Dosage: Not recommended for children under 12.

Usual adult dosage: Two tablets b.i.d. for 10 to 14 days. For patients with renal impairment:

Creatinine Clearance (ml/min)	Recommended Dosage Regimen
Above 30	Usual standard regimen
15-30	2 tablets every 24 hours
Below 15	Use not recommended

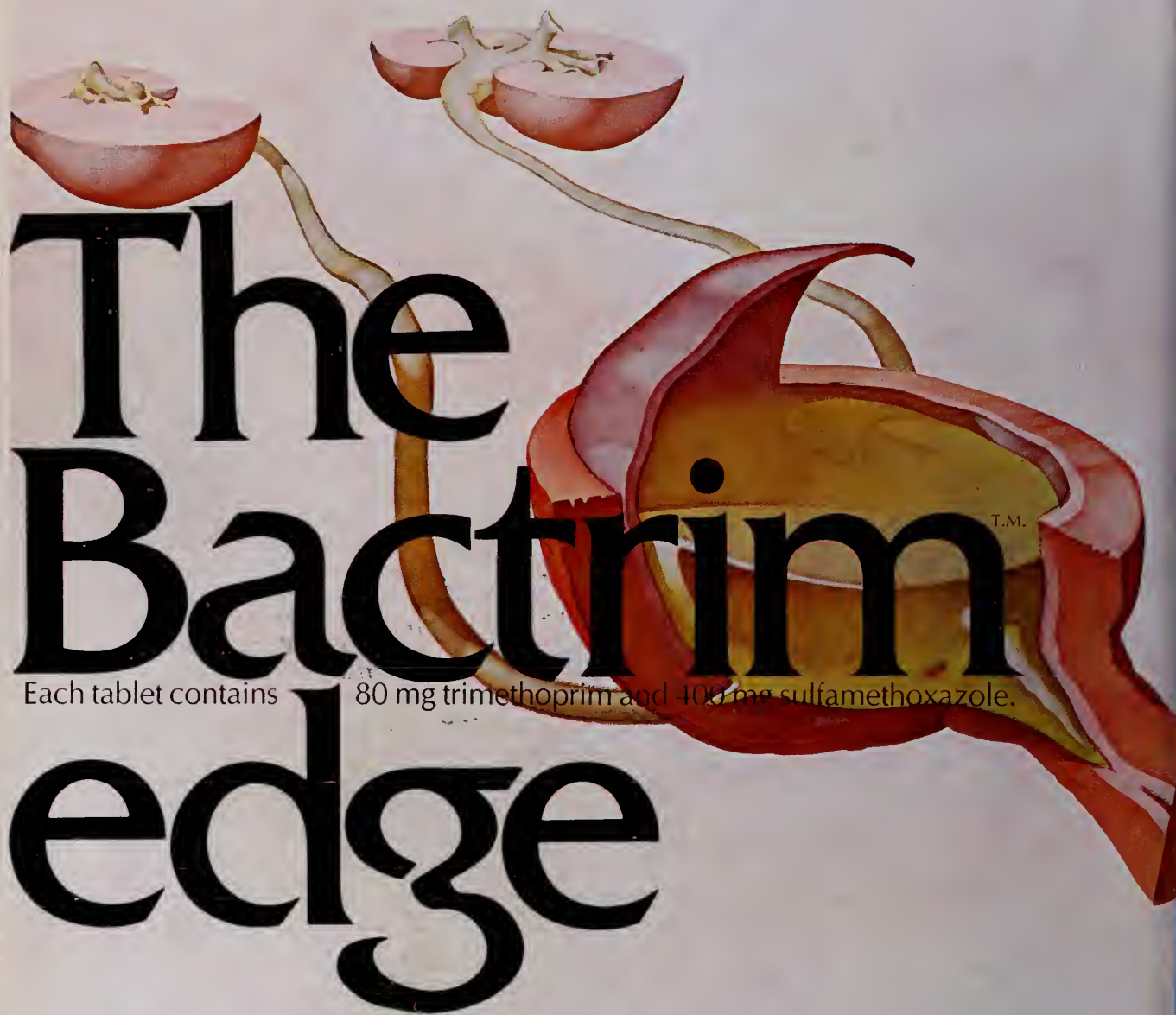
Supplied: Tablets, each containing 80 mg trimethoprim and 400 mg sulfamethoxazole—bottles of 100 and 500; Tel-E-Dose® packages of 1000; Prescription Packs of 40, available singly and in trays of 10.



Roche Laboratories
Division of Hoffmann-La Roche Inc.
Nutley, New Jersey 07110

Bactrim^{T.M.}

Each tablet contains 80 mg trimethoprim and 400 mg sulfamethoxazole.



Each tablet contains 80 mg trimethoprim and 400 mg sulfamethoxazole.

A high assurance of antibacterial activity
in cystitis, pyelonephritis and pyelitis diagnosed
as chronic and due to susceptible organisms.

Before prescribing, please consult complete product information,
a summary of which appears on preceding page.



The Journal of The KENTUCKY Medical Association

Seizures in Patients Over the Age of 40: A General Hospital Study

Fred P. Seifer, M.D. and O. J. Ignacio, M.D.

371

Non-Operative Removal of Retained Biliary Tract Stones

Joseph G. Whelan, Jr., M.D.

374

Facial Trauma—Initial Evaluation and Management

Han S. Lee, M.D. and W. Michael Bryant, M.D.

385

Highlights of 1974 Emergency Health Care Seminar

391

Complete Contents on Page 367

1974 KMA ANNUAL MEETING

September 24-26

Ramada Inn/Bluegrass Convention Center

Louisville



Everybody experiences psychic tension.



Most people can handle this tension.



Some people develop excessive psychic tension and need your counseling



and a few may need counseling
and the psychotropic action of Valium® (diazepam).

Before deciding to make Valium (diazepam) part of your treatment plan, check on whether or not the patient is presently taking drugs and, if so, what his response has been. Along with the medical and social history, this information can help you determine initial dosage, the possibility of side effects and the ultimate prospects of success or failure.

While Valium can be a most helpful adjunct to your counseling, it should be prescribed only as long as excessive psychic tension persists and should be discontinued when you decide it has accomplished its therapeutic task. In general, when dosage guidelines are followed, Valium is well tolerated (see Dosage). For convenience it is available in 2-mg, 5-mg and 10-mg tablets.

You should be aware of the possibility of side effects in some patients and should consult the complete product information before prescribing.



Roche Laboratories
Division of Hoffmann-La Roche Inc.
Nutley, N.J. 07110

Before prescribing, please consult complete product information, a summary of which follows:

Indications: Tension and anxiety states; somatic complaints which are concomitants of emotional factors; psychoneurotic states manifested by tension, anxiety, apprehension, fatigue, depressive symptoms or agitation; symptomatic relief of acute agitation, tremor, delirium tremens and hallucinosis due to acute alcohol withdrawal; adjunctively in skeletal muscle spasm due to reflex spasm to local pathology, spasticity caused by upper motor neuron disorders, athetosis, stiff-man syndrome, convulsive disorders (not for sole therapy).

Contraindicated: Known hypersensitivity to the drug. Children under 6 months of age. Acute narrow angle glaucoma; may be used in patients with open angle glaucoma who are receiving appropriate therapy.

Warnings: Not of value in psychotic patients. Caution against hazardous occupations requiring complete mental alertness. When used adjunctively in convulsive disorders, possibility of increase in frequency and/or severity of grand mal seizures may require increased dosage of standard anticonvulsant medication; abrupt withdrawal may be associated with temporary increase in frequency and/or severity of seizures. Advise against simultaneous ingestion of alcohol and other CNS depressants. Withdrawal symptoms (similar to those with barbiturates and alcohol) have occurred following abrupt discontinuance (convulsions, tremor, abdominal and muscle cramps, vomiting and sweating). Keep addiction-prone individuals under careful surveillance because of their predisposition to habituation and dependence. In pregnancy, lactation or women of childbearing age, weigh potential benefit against possible hazard.

Precautions: If combined with other psychotropics or anticonvulsants, consider carefully pharmacology of agents employed; drugs such as phenothiazines, narcotics, barbiturates, MAO inhibitors and other antidepressants may potentiate its action. Usual precautions indicated in patients severely depressed, or with latent depression, or with suicidal tendencies. Observe usual precautions in impaired renal or hepatic function. Limit dosage to smallest effective amount in elderly and debilitated to preclude ataxia or oversedation.

Side Effects: Drowsiness, confusion, diplopia, hypotension, changes in libido, nausea, fatigue, depression, dysarthria, jaundice, skin rash, ataxia, constipation, headache, incontinence, changes in salivation, slurred speech, tremor, vertigo, urinary retention, blurred vision. Paradoxical reactions such as acute hyperexcited states, anxiety, hallucinations, increased muscle spasticity, insomnia, rage, sleep disturbances, stimulation have been reported; should these occur, discontinue drug. Isolated reports of neutropenia, jaundice; periodic blood counts and liver function tests advisable during long-term therapy.

Dosage: Individualize for maximum beneficial effect.

Adults: Tension, anxiety and psychoneurotic states, 2 to 10 mg b.i.d. to q.i.d.; alcoholism, 10 mg t.i.d. or q.i.d. in first 24 hours, then 5 mg t.i.d. or q.i.d. as needed; adjunctively in skeletal muscle spasm, 2 to 10 mg t.i.d. or q.i.d.; adjunctively in convulsive disorders, 2 to 10 mg b.i.d. to q.i.d. *Geriatric or debilitated patients:* 2 to 2½ mg, 1 or 2 times daily initially, increasing as needed and tolerated. (See Precautions.) **Children:** 1 to 2½ mg t.i.d. or q.i.d. initially, increasing as needed and tolerated (not for use under 6 months).

Supplied: Valium® (diazepam) Tablets, 2 mg, 5 mg and 10 mg; bottles of 100 and 500. All strengths also available in Tel-E-Dose® packages of 100.

Valium® (diazepam)

To help you manage excessive psychic tension

Professional



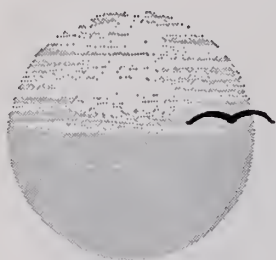
Protection

CONTINUOUSLY

Since 1899

**THE
MEDICAL PROTECTIVE COMPANY**
FORT WAYNE, INDIANA

LOUISVILLE OFFICE: Riley Lassiter, Representative
Suite 260
Shelbyville Road Mall Office Center
400 Sherburn Lane
Telephone: (Area Code 502) 895-5501
Mailing Address: P.O. Box 20065, Louisville, Kentucky 40220



SKYWAY ENTERPRISES, INC.

Executive Air Charter Service

Home Office 269-1413/ Flight Operations 255-6923
Lexington's Bluegrass Field/ Air Associates Terminal

- EDITOR
Walter I. Hume, Jr., M.D.
- ASSOCIATE EDITOR
Henry B. Asmon, M.D.
- ASSISTANT EDITOR
A. Evon Overstreet, M.D.
- EXECUTIVE EDITOR
Robert G. Cox
- MANAGING EDITOR
Jerry E. Mohoney
- ASSISTANT MANAGING EDITOR
Diane Moxey
- DEPARTMENTAL EDITORS
Charles C. Smith, Jr., M.D., Scientific
John W. Greene, Jr., M.D., Maternal
Mortality
- BOARD OF CONSULTANTS
ON SCIENTIFIC ARTICLES

Term Expires July 1, 1977

Lawrence C. Galdberg, M.D.
Carl H. Scott, M.D.
Richard K. Jelsma, M.D.
James A. Meyers, M.D.
Russell R. Rice, M.D.
William J. Callis, M.D.
Charles E. Dobbs, M.D.
David L. Brawn, M.D.

Term Expires July 1, 1976

Gehrig M. Robinson, M.D.
Mork S. Sexter, M.D.
Thomos E. Booth, M.D.
Potrick L. Jospser, M.D.
Oscor W. Thompson, M.D.
Stephen C. Schindler, M.D.
Van R. Jenkins, M.D.
John W. Miller, M.D.

Term Expires July 1, 1975

Robert E. Arnold, M.D.
Robert A. Holl, M.D.
Chrismon S. Jackson, Jr., M.D.
Lofoyette G. Owen, M.D.
Anne Richmon, M.D.
Ruel T. Routt, M.D.
Frnk G. Simon, M.D.
Leslie Van Nostrand, M.D.

Published at 3532 Ephroim McDowell Drive,
Louisville, Ky. 40205
Phone (Area Code 502) 452-6324

Subscription \$10 (Members \$5)

Single Copy \$1

Second-class postage paid at Louisville, Kentucky.
Acceptance for mailing at special rates postage
provided in Section 1103, act of Oct. 3, 1917,
authorized May 25, 1920.

Journal of The K E N T U C K Y Medical Association

Contents

SCIENTIFIC ARTICLES

Seizures in Patients Over the Age of 40: A General
Hospital Study
*Fred Seifer, M.D. and O. J. Ignacio, M.D.*371

Non-Operative Removal of Retained Biliary Tract Stones
*Joseph Whelan, Jr., M.D.*374

Facial Trauma—Initial Evaluation and Management
(Grand Rounds)
*Han Lee and W. Michael Bryant, M.D.*385

EDITORIAL

T A P.388

ORGANIZATION

1974 KMA Annual Meeting, September 24-26 in Louisville, Receives
Accreditation for Outstanding Scientific Program389

1974 Scientific Program Outline Released for Annual Meeting....389

President's Luncheon to Feature Lt. Governor Julian Carroll390

Kentucky Peer Review Organization Holds Organizational Meeting .390

KAFP Officers Elected, July Seminar Planned.....390

Annual Emergency Care Seminar Features Rescue Demonstration....391

REGULAR FEATURES

President's Page369 Postgraduate Opportunities...380

Letter to the Editor380

KENTUCKY MEDICAL ASSOCIATION

BOARD OF TRUSTEES — 1973-1974

Officers

President	FRED C. RAINEY 912 Woodland Dr., Elizabethtown 42701 (502) 765-4147 .1974
President-Elect	HOYT D. GARDNER 508 Watterson City Bldg., Louisville 40218 (502) 452-2684 .1974
Immediate Past President	LEE C. HESS 7211 U. S. 42, Florence 41042 (606) 371-1153 .....1974
Vice-President	GABE A. PAYNE 1610 S. Main St., Hopkinsville 42240 (502) 885-8445 ....1974
Secretary	S. RANDOLPH SCHEEN 1163 Medical Arts Bldg., Louisville 40217 (502) 451-1661 .1975
Treasurer	KEITH P. SMITH Medical Arts Bldg., Corbin 40701 (606) 528-3211 .....1975
Speaker, House of Delegates ...	RICHARD F. GREATHOUSE 5 Triangle Center, Louisville 40220 (502) 458-3219 .....1974
Vice-Speaker	CARL COOPER, JR. Bedford 40006 (502) 255-3282 .....1974
Chairman, Board of Trustees ...	BALLARD W. CASSADY Pikeville Medical Bldg., Pikeville 41501 (606) 437-6698 ..1974
Vice-Chairman	PAUL J. PARKS 1109 State St., Bowling Green 42101 (502) 781-5111 ....1974

Delegates to the A.M.A.

J. THOS. GIANNINI, Suite 3E, Suburban Medical Plaza, Louisville (502) 897-2555	Jan. 1973-Dec. 1974
CHAS. G. BRYANT, (Alt.) 3357 Medical Arts Bldg., Louisville (502) 452-1558	Jan. 1973-Dec. 1974
JOHN C. QUERTERMOUS, 205 S. 8th St., Murray (502) 753-5161	Jan. 1974-Dec. 1975
WILLIAM W. HALL, (Alt.) Mayfair Square, Owensboro (502) 684-6255 ...	Jan. 1974-Dec. 1975
DAVID B. STEVENS, 2101 Nicholasville Rd., Lexington (606) 278-3481	Jan. 1974-Dec. 1975
THOMAS L. HEAVERN, (Alt.) 2435 Alexandria, Highland Hgts. (606) 441-7600	Jan. 1974-Dec. 1975

Trustees

1st	W. EUGENE SLOAN, 2320 Broadway, Paducah 42001 (502) 443-4581 .....1974
2nd	CHARLES C. KISSINGER, Atkinson Park, Henderson 42420 (502) 826-6271 .....1976
3rd	RALPH L. CASH, 210 West Main St., Princeton 42445 (502) 365-2037 .....1974
4th	W. BRUCE HAMILTON, 4th & Buckman, Shepherdsville 40165 (502) 543-6362 ...1974
5th	EDWARD N. MAXWELL, St. Joseph Infirmary, Louisville 40217 (502) 636-7461 ..1975
6th	PAUL J. PARKS, 1109 State St., Bowling Green 42101 (502) 781-5111 .....1975
7th	JOHN P. STEWART, 220 Steele St., Frankfort 40601 (502) 227-4718 .....1976
8th	CARL J. BRUEGGEMANN, 325 W. 19th St., Covington 41014 (606) 291-4768 ..1975
9th	JAMES L. FERRELL, Bourbon Medical Ctr., Paris 40361 (606) 987-2200 .....1976
10th	DAVID A. HULL, 2368 Nicholasville Rd., Lexington 40503 (606) 277-5711 ....1976
11th	R. EUGENE BOWLING, 527 W. Main, Richmond 40475 (606) 623-3754 .....1975
12th	ROBERT N. McLEOD, JR., 500 Bourne Ave., Somerset 42501 (606) 678-8155 ....1974
13th	J. WESLEY JOHNSON, 2301 Lexington Ave., Ashland 41101 (606) 325-1151 ....1976
14th	BALLARD W. CASSADY, Pikeville Med. Bldg., Pikeville 41501 (606) 437-6698 ..1974
15th	HAROLD L. BUSHEY, 406 Knox St., Box 770, Barbourville 40906 (606) 546-3024 1975

BUYERS GUIDE

JULY BUYERS GUIDE FOR JOURNAL OF KMA 1974

Abbott Laboratories	396	Medical Protective Company	366
Berea Hospital	392	Pharmaceutical Manufacturers Association	394-395
Burroughs Wellcome Company	381	Roche Laboratories	364-365, 397-398
Federal Correctional Institution	392	Searle Laboratories	382-383
Flint Laboratories	393	Skyway Enterprises, Inc.	366
General Leasing Corporation	392	Smith, Kline & French Company	384
Hospital Corporation of America	392	Southern Optical Company	387
Eli Lilly & Company	370		

MESSAGE FROM THE PRESIDENT



Community Mental Health Centers – Quantity or Quality???

Few people would question the need for quality mental health services at the community level throughout the state. Certainly a vast majority, if not all people, have great compassion for the mentally handicapped and the problems of care which they present. Few people would object to using public funds for needed and proper care for people who are mentally ill, retarded, or otherwise handicapped. But is the present statewide system of community mental health centers providing that care? And are they concentrating on providing quality care or are they spending more time developing another large, cumbersome, uncontrollable, vastly expensive bureaucracy?

There are 15 regional community mental health centers in Kentucky (some regions have more than one center). It is most interesting to note that in one region the community mental health center has grown from over 70 employees to over 300 employees in one year with a projected employment of 700 employees for next year! The budget has likewise "snowballed" from \$1 million to \$3 million in one year with a projected budget of \$7 million for next year! Of this 300 plus employees, only two are full-time psychiatrists and only 14 are psychologists. There are over 90 people, however, providing counseling services. How can two psychiatrists properly and adequately supervise 90 people providing counseling services? There is certainly a serious question as to whether all people who are providing counseling services are, in fact, adequately trained to provide those services. Sending a nurse who is a graduate of a two-year community college program (without psychiatric training) into schools to counsel students who are too emotionally disturbed to be handled by school counselors is not a demonstration of quality assurance. Yet millions of dollars are poured into the programs—yea even Medicaid pays the mental health centers a flat fee of \$16.82 per visit **regardless** of whether the patient sees a psychiatrist, psychologist, nurse or social worker!

As if this were not bad enough, there seems to be a very unusual, though interesting, desire to expand mental health centers to encompass other heretofore freestanding segments of health care. It seems apparent moves are afoot to swallow up local health departments under the premise that local health departments are not providing adequate services and are not economically efficient. God save the day when local health departments are as costly as community mental health centers and I suspect quality would not be improved if taken over and operated by the mental health people either directly or indirectly.

Had enough? There's more! In at least one region the mental health people have established a Foundation for Medical Care, have secured board members, drafted and filed Articles of Incorporation—all without any consultation with affected county medical societies. The purpose of the Foundation?—to operate an HMO!

A statement has been made from a mental health leader that the people of Kentucky do not want quality, they want quantity. I submit to you that the people of Kentucky not only want quality care, they deserve it. What is your community health center doing? Perhaps you should find out.

Fred C Rainey

Kefzol[®] cefazolin sodium

Ampoules, equivalent to 1 Gm. of cefazolin



Additional information available
to the profession on request.
Eli Lilly and Company
Indianapolis, Indiana 46206
400380

The JOURNAL *of the* Kentucky Medical Association

ISSUED MONTHLY UNDER THE DIRECTION OF THE BOARD OF TRUSTEES

VOLUME 72

JULY 1974

No. 7

Seizures in Patients Over the Age of 40: A General Hospital Study

FRED P. SEIFER, M.D. AND O. J. IGNACIO, M.D.

Louisville, Kentucky

A retrospective General Hospital study of 153 consecutive patients with the onset of seizures over age 40, of which 100 had complete neurologic investigation, reveals a high incidence of organic demonstrable lesions.

THE incidence of seizures in a general population has been well studied previously. Merritt describes a twin peak curve with high incidences in the young and old age groups. He states that the highest incidence is below the age of five with 152/100,000 population. The second peak is in patients over the age of 80 with 74/100,000 population. Between these ages the incidence falls, so that between the ages of 20 and 70, there are only four to 20 cases per 100,000 population.¹

The vast majority of seizures occur before the age of 20, and by the age of 40 about 96% of patients with seizures will have already had their first episode.² The onset of seizures in the adult population has been studied previously by several authors.³⁻¹⁰ Our aim was to reinvestigate a series of patients with late onset seizures, (i.e., those over the age of 40,) and determine if there is an increased incidence of treatable or demonstrable lesions in this group. We will not discuss patients under the age of 40 in this paper.

Methods and Materials

The patients presented in this study were collected from the files of the Division of Neurology at Louisville General Hospital. These consisted of patients admitted to the Neurology Service and those seen in consultation from January 1, 1967, to December 31, 1972. These patients had a history of an initial seizure after the age of 40. During this period 153 consecutive patients were seen answering these criteria.

The Louisville General Hospital serves a population of over 800,000. During this period 14,590 adult patients were admitted to the medical service of the hospital. It should be noted that the majority of patients coming to the hospital are indigent.

The charts of these 153 patients were reviewed and the following criteria were established for inclusion in this study:

1. Complete history, physical, and neurologic examination
2. Lumbar puncture
3. Electroencephalogram
4. At least one of the following investigative procedures:
 - a. Arteriography
 - b. Pneumoencephalography
 - c. Surgery and/or
 - d. Autopsy

Some of these patients had a brain scan. However, the presence of positive findings on brain scan, but a lack of the more definitive

procedures (i.e. arteriography, etc.), did not warrant inclusion in this study.

In considering these criteria 100 cases fell into this investigative outline. The remaining 53 cases did not have a complete evaluation.

Results

A. Sex and Age: As seen in Table 1 there was a marked preponderance of males (100 males to 53 females) in the study. It is of interest to note that during the period of study the number of admissions of males was 7,544 and females was 7,046. The age distribution of our patients is fairly uniform in the fifth to seventh decades. Table 2 shows that in our age group of 68 patients with demonstrable lesions there were 50 males and 18 females. One can also see that the age distribution is again almost equal in the fifth through seventh decades.

TABLE 1

Sex and Age

Total No.: 153 Patients
Males: 100
Females: 53

AGE	NO.
40-49	42
50-59	49
60-69	47
70 & over	15

B. Type of Seizure: Table 3 indicates that the majority of patients have generalized seizures. However, in considering patients with demonstrable lesions, it is of interest to note that those with focal and psychomotor seizures have a higher incidence of positive findings. Table 4 shows graphically the age and type of seizures in the 68 patients with positive findings.

C. Demonstrable Lesions (See Table 5):

1. Neoplasm:—In the ages between 40 and 69 the distribution of all neoplasms was fairly equal. Of the seven primary tumors there were four meningiomas (57%), two astrocytomas (29%), and one combined oligodendroglioma and astrocytoma (14%). Of the 19 secondary neoplasms there were 14 (74%) with a primary in the lung and one each (5%) from the thyroid, pyriform sinus, colon, breast, and one malignant melanoma.

2. Vascular: The diagnoses of atherosclerosis and occlusion were made by arteriography which showed various degrees of

TABLE 2

Age & Sex Distribution in 68 Positive Cases

Total No.: 68 Patients
Males: 50
Females: 18

AGE	MALE	FEMALE	TOTAL
40-49	15	7	22
50-59	14	7	21
60-69	18	3	21
70 & over	3	1	4
	50	18	68

abnormality ranging from beading to incomplete or complete occlusion of intercranial vessels. The diagnosis of hemorrhage was made by positive cerebrospinal fluid findings, arteriography and/or autopsy. This included one case of subarachnoid hemorrhage without demonstrable intracerebral hematoma or aneurysm. The remaining cases all had intracerebral hematomas. The aneurysms were demonstrated by arteriography. The majority of patients with vascular disease were above the age of 60.

3. Others: Of the four cases of cerebral contusion all had positive radiographic and surgical findings to substantiate this diagnosis. The diagnosis of normal pressure hydrocephalus was made after routine history and physical examination, RIHSA cisternography, and pneumoencephalography. We are not sure whether the cerebellar hemorrhage was the primary etiological factor for the patient's seizure disorder. This diagnosis was made at autopsy.

4. Undetermined: — Of the 100 cases with complete investigative studies there were 32 patients in which we were unable to demonstrate any lesion.

Discussion

This retrospective study was undertaken with the aim of determining the incidence of demonstrable lesions in patients with the onset of

TABLE 3

Type of Seizure

	TOTAL NO.	NO. WITH DEMONSTRABLE LESION
Grand Mal	102	43 (43%)
Focal	25	13 (52%)
Mixed (GM & Focal)	23	9 (39%)
Psychomotor	3	3 (100%)
	153	68

seizures over the age of 40. From our figures we found a relatively high incidence of males. It was also noted that the presence of focal and psychomotor seizures yielded a higher percentage of demonstrable lesions. In those patients where we found demonstrable lesions the neoplastic and vascular etiologies comprised 51 (75%) of these cases. There were 32 cases where no demonstrable lesion was found even after complete investigative studies as outlined above. There were 53 cases which were not completely investigated, and among these were several with abnormal physical and neurologic findings. However, these were not included in our 100 cases since they did not satisfy our criteria for inclusion in this study.

TABLE 4

Age & Seizure Type Distribution in 68 Positive Cases

AGE	G.M.	FOCAL	MIXED	PSYCHOMOTOR	TOTAL
40-49	12	6	2	2	22
50-59	15	3	3	0	21
60-69	13	4	3	1	21
70 & over	3	0	1	0	4
	43	13	9	3	68

In the review of literature on this subject we found that the incidence of demonstrable lesions in patients with the first seizure after the age of 40 varied greatly (9 to 63%). This study would indicate that 68% of the patients completely evaluated had lesions. It would seem, therefore, worthwhile to pursue further investigative procedures in patients who presented their first seizure after this age.

A possible source of error in this study would be the type of patient population from which this study was drawn. Another would be our failure to pursue complete investigative studies in patients over the age of 70. And a significant factor would be the physician's desire to fully investigate the case after the basic investigative procedures were done. These included history, physical and neurologic examination, electroencephalogram, and lumbar puncture.

Summary

1. We present a retrospective study of 153 consecutive patients with a first seizure over

TABLE 5
Demonstrable Lesions

	40-49	50-59	60-69	70 & over	Total
Neoplasm					26
Primary	3	3	1	0	7
Secondary	6	6	7	0	19
Vascular					25
Atherosclerosis	2	3	2	2	9
Occlusion	0	1	5	1	7
Hemorrhage	0	3	4	0	7
Aneurysm	1	0	1	0	2
Subdural	3	1	2	1	7
Contusion	3	1	0	0	4
Cortical Atrophy	1	0	1	0	2
Normal Pressure					
Hydrocephalus	0	1	0	1	2
Abscess	1	0	0	0	1
Cerebellar Hemorrhage	0	1	0	0	1
Undetermined					85
Complete Study					32
Incomplete Study					53

the age of 40 admitted to the medical and neurologic services of the Louisville General Hospital between January, 1967, and December, 1972.

2. Of these, 100 patients had complete investigative studies which included history, physical and neurologic examination, a lumbar puncture, electroencephalogram, and one of the following procedures such as arteriography, pneumoencephalography, surgery, or autopsy. Many had brain scans.

3. Sixty-eight per cent of those 100 patients had demonstrable lesions. Of these, the majority, 51 (75%), were of neoplastic and vascular etiologies. Thirty-two per cent had complete studies, but no demonstrable lesions were found.

References

1. Merritt, H.H.: A Textbook of Neurology, ed. 4, Philadelphia, Lea & Febiger, 1967. Pg. 756.
2. Wilson, S.A.K., ed. Bruce, A.N.: Neurology, ed. 2, Baltimore, Williams & Wilkins, 1955. Pg. 1657.
3. Berlin, L.: "Significance of Grand Mal Seizures Developing in Patients Over 35 Years of Age", *JAMA* 152:794, 1953.
4. White, P., Bailey, A.A., Bickford, R.G.: "Epileptic Disorders in the Aged", *Neurol.*, Minnesota, 3:674, 1953.
5. Sheehan, S.: "One Thousand Cases of Late Onset Epilepsy", *Irish J. Med. Sci.*, Series 6261, 1958.
6. Martin, H., McDowell, F.: "Evaluation of Seizures in the Adult", *AMA Archives of Neurology and Psychiatry*, 71:101, 1954.
7. Dimsdale, H.: "Epilepsy of Late Onset in the Light of Modern Diagnostic Procedures", *Brit. Med. J.*, ii:1214, 1956.
8. Woodcock, S., Cosgrove, J.B.: "Epilepsy After the Age of 50", *Neurol.*, 14:34, 1964.
9. Carney, L.R., Hudgins, R., Espinosa, R., Klass, D.: "Seizures Beginning After the Age of 60", *Arch. of Int. Med.*, 124:707, 1969.
10. Ang, R.T., Utterback, R.A.: "Seizures with Onset After 40 Years of Age; Role of Cerebrovascular Disease", *Southern Med. J.*, 59:1404, 1966.

Non-Operative Removal of Retained Biliary Tract Stones: Combined Percutaneous Extraction and Heparin Flushing Therapy

JOSEPH G. WHELAN, JR., M.D.*

Louisville, Kentucky

Eight patients with retained biliary tract stones have been treated using non-operative methods of percutaneous extraction and/or Heparin lavage therapy through the T-tube. Only one patient required re-exploration.

DISCOVERY of a retained stone in the biliary tract following surgery is a perplexing problem both to the patient and the surgeon. Retained biliary tract stones are not uncommon. The incidence of ductal stones with cholelithiasis is 12 to 15%.¹ Twenty to 40% of the patients undergoing cholecystectomy have common duct exploration.² The incidence of retained stones ranges from five to 11%.¹⁻³

The usual approach to this problem has been reexploration and removal of the stone(s). This involves a second major exploration, postoperative recovery, and increased morbidity due to the recent surgery in the same area. Many methods have been used to avoid this second exploration. Non-mechanical methods were first used. Ether was used through a cholecystotomy fistula in 1891 in an attempt to dissolve the stones.⁴ Chloroform was then combined with ether in 1953.⁵ Oral bile salts were first described in 1957 in an attempt to increase bile flow to dissolve or pass stones.⁶ In 1972, sodium cholate infusion through a T-tube was described with a success rate of 59%.¹ Heparin therapy is currently felt to be the best solution for fragmentation and dissolution of a retained stone with a success rate of 73%.^{7, 8}

The first mechanical means of extraction of a retained stone was described in 1962 using

a Mondet forceps.⁹ Other methods described are flushing and aspiration of stones using a Coude catheter,¹⁰ pushing stones into the duodenal loop by a catheter,¹¹ and catheterization of the common bile duct with dilatation of the Sphincter of Oddi.¹⁰ Dilatation of the fistulous tract has also been carried out for removal of larger stones.¹² The ureteral Dormia Catheter Basket system was used to snare and extract stones in 1971.¹³ Also in 1971, a controllable guide system was used to remove stones.¹⁴

Materials and Methods

Stones have been removed from eight patients by a combined method of chemical dissolution, hydrodynamic flushing, and/or instrumental fragmentation and extraction, or expulsion of the stones into the duodenal loop. The procedures are carried out four to six weeks postoperative to allow a good fistulous tract to form. If the stone is the same size, or smaller than the T-tube, only the instrumental procedure is carried out. If the stones are larger than the T-tube, a course of Heparin infusion is carried out through the T-tube using the technique described by Gardner.⁷ For Heparin lavage therapy, these patients are hospitalized for about five to seven days. If the stones are proximal to the T-tube, it may be necessary to thread a small polyethylene tubing above the stones for Heparin flushing. T-tube cholangiograms are carried out before and after Heparin lavage.

The percutaneous stone removal is carried out in the Radiology Department Special Procedure Room with the patient under mild sedation or premedication of Demerol and Atropine. An IV solution of Lactated Ringer or D5W is started prior to the procedure for injection of any medications if necessary. The Cook Stone Retrieval Kit* is used with a technique similar to that described by Burhenne² and

*Radiologist, St. Anthony Hospital, Louisville

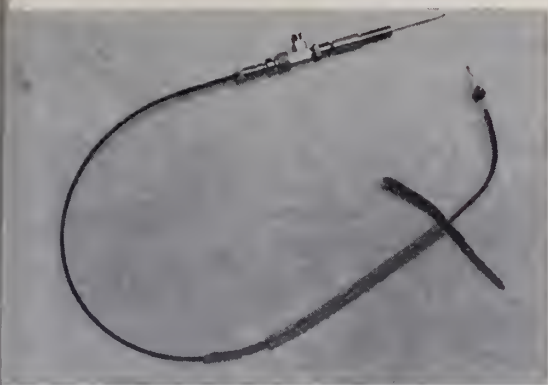


FIG 1 Stone Retrieval Kit: 6 F catheter passed through a 12 F T-tube. Adaptor connected for contrast injection. Sleeve inserted over "external" limb of T-tube.

Mahorner and Bean.¹⁴ A T-tube cholangiogram is done just before the extraction procedure. A #6 French catheter is used which will pass through the smallest T-tube (Fig. 1). For a larger stone a #9 French woven dacron catheter** was modified for use with a Dormia 3 or 4 wire stone dislodger basket***. A side connector on the catheter permits injection of contrast, usually Renografin 60, and allows continuous opacification of the biliary system during the procedure. After the stone removal, a T-tube of the same size is reinserted and allowed to drain overnight since some edema may develop from instrumentation. A repeat T-tube cholangiogram is then carried out the following day. Repeat instrumentation can be done if necessary. Otherwise the T-tube can then be removed. The T-tube tract usually closes within 48 hours.

Cases requiring instrumentation should be hospitalized for two reasons. The patient is observed overnight, for any possible complications. Also there is a possibility of snaring the stone and not being able to pull the stone through the T-tube tract. If the basket cannot be emptied, it may become necessary to remove the basket and stone surgically.

Case Reports

Case #1 (N.M.) #3755-73: This 74-year-old female had a cholecystectomy and common duct exploration on February 13, 1973, at a Louisville hospital. An operative cholangiogram was negative. One week later a T-tube cholangiogram revealed a retained stone in the common bile duct. She was admitted to St.

Anthony Hospital on March 27, 1973. Under mild sedation, using a total of 5 mg of Valium intravenously during the procedure, the stone was removed by percutaneous method inserting a #6 French catheter-basket system through the T-tube. The catheter, basket, stone, and T-tube were removed simultaneously (Fig. 1). A modified T-tube was reinserted with amputated limbs of the "T", and allowed to drain overnight. She was discharged the following morning. The tube was removed by her attending surgeon and no complications were encountered.

Case #2 (L.E.) #7394-73: This 45-year-old female had a six-year history of gall bladder disease. She had a cholecystectomy and common duct exploration in a Kentucky hospital, May, 1973. Numerous stones were impacted in the common bile duct. A cholecystectomy was performed and all stones were felt to be removed from the common bile duct. A T-tube was inserted for drainage. A postoperative T-tube cholangiogram revealed residual common duct stones.

She was transferred to St. Anthony Hospital on June 24, 1973. Repeat T-tube cholangiogram revealed several stones with the larger stone measuring 1.5 cm in diameter. A course of Heparin saline lavage was carried out through the T-tube giving 20,000 units of Heparin in 500 cc saline every 12 hours at the rate of 40 cc per hour for five days. There was no significant change in size of the stones. On June 29th and July 2nd percutaneous extraction of stones were carried out. The stones crushed easily during removal. However, all stones could not be removed. A modified T-tube was reinserted for drainage. She was taken to surgery on July 3rd and reexploration of the common duct was carried out. Numerous stones were removed. However, several stones were lodged high within hepatic radicles and could not be removed. Finally, a sphincteroplasty and choledochoduodenostomy had to be performed to allow these stones to pass spontaneously.

Case #3 (A.G.) #7394-73: This 62-year-old male diabetic, controlled on Lente insulin, had a cholecystectomy and common duct exploration at a Louisville hospital on May 5, 1973. Operative cholangiogram was negative. Multiple complications followed including atelectasis, pneumonitis, and multiple pulmo-

*Cook, Inc., Bloomington, Indiana.

**U.S. Catheter Inc., Glen Falls, N.Y.

***V. Mueller Company, Chicago, Ill.



FIG 2A Case 4: T-tube cholangiogram. Three stones in common bile duct. One other stone is obscured by T-tube.

nary emboli. Before hospital discharge a T-tube cholangiogram revealed a single large residual stone in the common hepatic duct. He was readmitted to the hospital April 16, 1973, for Heparin lavage therapy. There was no apparent change in the size of the stone. He was allowed to recover from his surgery and complications. Following this he was admitted to St. Anthony Hospital for percutaneous extraction of the stone. He was placed on Ampicillin 500 mg qid orally 24 hours before the extraction procedure. The first attempt at removal on August 8, 1973, was unsuccessful. The stone measuring 8 mm would not slip into the smaller Cook Retrieval Basket. A modified T-tube was reinserted. A second attempt was carried out on August 10, this time using a larger Dormia ureteral stone basket. The stone was snared but was too large to pass through the fistulous tract. However, the stone crushed easily and all fragments were removed. Finally, the entire biliary tract was irrigated with Heparin saline solution until clear. Another modified T-tube was inserted, drained overnight, and then clamped. He was discharged the following day. The cholangiogram was normal one week later. The tube was removed. No complications were encountered.

Case #4 (W.M.) #6823-73: This 59-year-old male had a cholecystectomy on June

14, 1973, which was impacted with stones. The common bile duct was dilated and contained numerous stones which were removed. A #20 French T-tube was inserted but an operative cholangiogram revealed residual stones. The common duct was reopened and the stones were removed. A repeat operative cholangiogram again was questionable for stones or air bubbles. However due to a previous history of myocardial infarction with cardiac arrhythmias and the length of the operative procedure, the surgeon felt he should close with the T-tube in place. A T-tube cholangiogram on June 25 revealed four retained biliary tract stones. He was discharged and allowed to recover from his surgery. He was readmitted approximately 16 weeks later for percutaneous extraction of the stones. On October 19, 1973 after pre-medication with 75 mg of Demerol and 0.2 mg Atropine he was brought to the Special Procedure Room and a T-tube cholangiogram performed. Three stones were seen in the common bile duct and one was hidden behind the T-tube (Fig. 2A). A #9 French catheter was advanced through the T-tube and passed distal to the stones. The basket was advanced and opened. The distal stone was snared and retracted back to the "window" of the T-tube (Fig. 2B). At this time the T-tube, basket, and two stones were removed simultaneously. The



FIG 2B Case 4: Stone in basket (single arrow). T-tube still in place. Notice stone now seen in common hepatic duct (double arrow).



FIG 2C Case 4: Basket open distal to stone in common bile duct. T-tube has been removed.

catheter basket system was reinserted removing the other distal stone. Finally, the catheter basket system was reinserted this time passing into the common hepatic duct. The basket was open but was distal to the stone (Fig. 2C). The basket was closed, the catheter advanced proximal to the stone, and the basket then reopened. The stone was snared and retrieved (Fig. 2D). Another #20 French tube was re-inserted for drainage overnight. Repeat T-tube cholangiogram October 20 was normal. No complications were encountered.

Case #5 (Z.T.) #12921-73: This 92-year-old female presented with vomiting and right upper quadrant abdominal pain on November 13, 1973. Physical exam suggested a distended gall bladder. On November 15, an exploratory laparotomy was performed and revealed a distended gall bladder impacted with stones. Due to the patient's age and poor physical condition, a cholecystotomy was performed and the gall bladder irrigated until all stones were removed. A #30 French Foley catheter was inserted and the gall bladder then closed around the ballooned catheter. The catheter was brought outside the abdomen and the incision closed. Postoperatively she developed pneumonia and mild heart failure but responded to therapy. On November 27, a cholangiogram was performed through the catheter within the gall bladder. This revealed a 3 mm

stone within the cystic duct and seven 3 mm stones within the common bile duct. Heparin saline lavage was then started, giving 250 mg Heparin in 250cc saline continuous drip over eight hours for five days through the catheter. There was considerable leakage of the flushing solution around the catheter entrance site and the surgeon felt the procedure was unsuccessful. However, a repeat cholangiogram was carried out on December 3, 1973, and the stone in the cystic duct, and all but one of the stones in the common bile duct, had disappeared. She was discharged and as of March 27, 1974, remains asymptomatic but still has the Foley catheter clamped in place.

Case #6 (J.G.) #13950-73: This 85-year-old male had a cholecystectomy in a Kentucky hospital in 1971. In September, 1973, he had a common duct exploration for jaundice in a Louisville hospital. A T-tube cholangiogram after he was discharged revealed a retained common duct stone. He was admitted to St. Anthony Hospital and on December 17, 1973, the stone was extracted by percutaneous method. The stone was in the form of sludge and fragmented during removal. The remaining fragments were flushed into the duodenal loop with Heparin saline solution during the procedure. A modified T-tube was reinserted and a

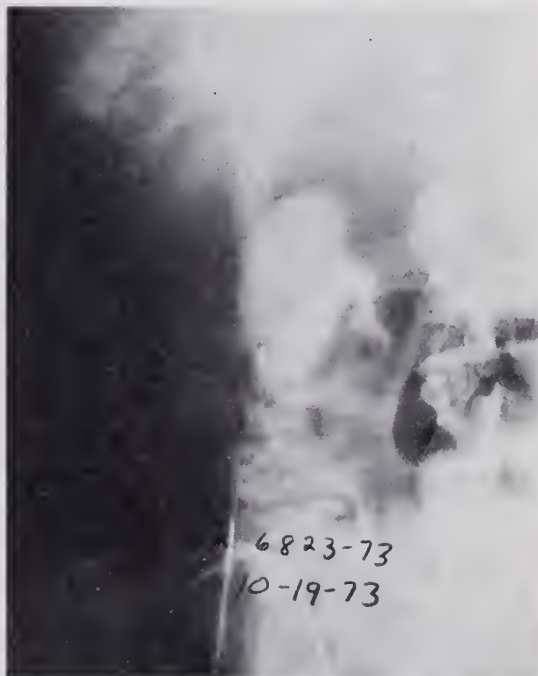


FIG 2D Common hepatic stone now within basket. Opacified duodenal bulb overlies biliary tract. Notice inferior displacement of biliary tract from traction on basket.

cholangiogram was performed and was normal. The cholangiogram was repeated on December 27 and remained normal. The T-tube was then removed and no complications were encountered.

Case #7 (M.B.) #11377-73: This 76-year-old female underwent a cholecystectomy and common duct exploration November, 1973, in a Louisville hospital. Operative cholangiogram was negative. However, her postoperative cholangiogram revealed a 9 mm retained common duct stone. She was admitted to St. Anthony Hospital on December 19, 1973, and under Valium sedation a percutaneous extraction of the stone was attempted but was unsuccessful. A modified T-tube was reinserted. Heparin saline lavage was then carried out for two days giving 20,000 units Heparin in 250cc saline over each six-hour period. The T-tube cholangiogram was then repeated on December 21 with plans to reattempt percutaneous extraction. However, the stone had completely dissolved or fragmented and passed at this time. The cholangiogram was repeated on December 28 and again was normal. The T-tube was then removed and no complications were encountered.

Case #8 (M.G.) #4047-74: This 50-year-old female underwent a cholecystectomy and common duct exploration at a Louisville Hospital on February 19, 1974. An operative cholangiogram was normal. A T-tube cholangiogram just before discharge revealed a residual 6 mm stone in the common bile duct. Her T-tube was kept open to drainage until admission to St. Anthony Hospital on March 27. A T-tube cholangiogram was performed prior to extraction of the stone and revealed a rather tortuous course. The modified Dormia Catheter Basket System was used to retrieve the stone demonstrating the extremely tortuous course (Fig. 3). After the stone was removed, several attempts were made to reinsert a modified T-tube but were unsuccessful due to the tortuosity of the fistulous tract.

Discussion

We have successfully extracted retained biliary tract stones from all seven cases presenting with postoperative stones with the T-tube in place. In six of the seven cases all stones were removed saving these patients re-



FIG 3 Case 8: Stone within catheter-basket system. Notice extremely tortuous T-tube fistulous tract.

exploration. This is comparable to other reports where the success ranges from 72 to 95%.^{1,2,12} On the eighth patient, only a cholecystotomy was performed and therefore instrumentation could not be carried out. However, Heparin lavage therapy was successful in eliminating all but one stone within the common bile duct, and again avoiding reexploration.

There is some controversy as to the action Heparin has on dissolving stones.^{8,15} Heparin is most effective with predominately cholesterol stones. Gardner feels Heparin mainly causes fragmentation of stones, and with the flow of bile allows these fragments to pass into the duodenum. This may account why we saw no change in size of stones in Cases 2 and 3 but when snared with the basket, these stones crushed easily.

We experienced no complications in our cases. Some of the minor complications described following instrumentation include colic, vomiting, and transient fever.^{12, 14} Transient fever is most likely secondary to manipulation of the fistulous tract although one has to consider the possibility of cholangitis. More serious complications include cholangitis with

icterus, accidental creation of a false passage in the fistulous tract, common duct perforation, and perforation into the pancreas. The most common complication to be expected is the basket and stone lodged within the fistulous tract requiring surgery for removal.

Certain precautions will greatly reduce the chances of complications. One must wait at least four weeks to allow a good fistulous tract to form. The retrieving basket should never be advanced in the open position reducing the chances of perforation. Also, notice the amount of excursion of the bile duct comparing Figures 2A and 2D. If one is unable to obtain one to two centimeter displacement of the opacified bile duct with traction, periductal adhesions are likely, and the chances of perforation by manipulation are increased. If the T-tube must be removed before the catheter basket system is introduced, one or two safety-J angiographic guide wires should be inserted to allow passage of the catheter safely through the fistulous tract. One of the safety-J wires should be advanced into the duodenum if possible. This second wire allows a means of safe reentry when multiple reinsertions of the catheter become necessary. Bactobilia, usually *E. coli*, without cholangitis has been found to occur after instrumentation of the biliary system.^{3,14} Therefore, 24 hours of preliminary antibiotic therapy has been recommended in some of these reports. Only one of our cases was covered with antibiotics prior to instrumentation since he was a diabetic and had numerous postoperative complications following his original gall bladder surgery.

Other precautions are recommended for the surgeon to consider during his original gall bladder surgery on the patient. The tendency is to use the smallest T-tube possible after exploring the common bile duct. If a small T-tube is used, a sleeve of the larger T-tube could be slit and inserted over the limbs extending outside the abdomen. Care must be taken to anchor the sleeve to the primary T-tube to avoid slipping during the course of recovery. And this limb should be brought out as straight as possible. In Case 8 manipulation was somewhat difficult in extracting the stone due to the tortuous tract. Because of this, we also were unable to reinsert a drainage tube after the procedure. It is best if the roof of the

entire length of both limbs of the T-tube in the common bile duct and common hepatic duct is removed rather than a small window cut at the junction of the T (Fig. 1). These modifications allow easier manipulation of the catheter stone retrieval system and allows percutaneous removal of stones larger than the primary T-tube.

Summary

Percutaneous extraction of retained biliary tract stones and/or use of Heparin lavage therapy were used on eight patients, seven of them successfully, thereby preventing reexploration and further increased morbidity in these patients. These methods were found to be quite effective therapy, of low risk, and should be considered for patients found to have retained biliary tract stones who still have their T-tube in place.

Acknowledgement

I am indebted to John McClane, M.D., one of my partners, for participating in the extraction procedures and Heparin therapy in some of these cases.

References

1. Way, L.W., Admirand, W.H., Dunahy, J.E., Management of Choledocholithiasis, *Ann Surg.* 176:347; 1972.
2. Burhenne, H.C., Non-Operative Retained Biliary Tract Stone Extraction, *Am J Roentgenol.* 117:388; 1973.
3. Patterson, H.C., Grice, O.D., Bream, C.A., Overlooked Gallstones and their Retrieval, *Am. J. Surg.* 125:257; 1973.
4. Walker, J.W., The Removal of Gallstones by Ether Solution, *Lancet* 1:874; 1891.
5. Best, R.R., Rasmussen, J.H., and Wilson, C.E., Evaluation of Solutions for Fragmentation and Dissolution of Gallstones and their Effect on Liver and Ductal Tissue, *Ann. Surg.* 138:570; 1953.
6. Cole, W.H. and Harridge, W.H., Disappearance of "Stone" Shadows in Postoperative Cholangiograms, *JAMA* 164:238; 1957.
7. Gardner, B.: Experience with Use of Intracholedochal Heparinized Saline for the Treatment of Retained Common Duct Stones, *Ann. Surg.* 177:240; 1973.
8. Gardner, B., Heparin for Common-Duct Stone, *N. Engl. J. Med.* 289:106; 1973.
9. Mondet, A., Técnica De La Extracción Incurtada De Los Calculos En La Litiasis Residual Del Coledaco, *Bol. Soc. Cir. B. Air.* 46:278; 1962.
10. Lamis, P.A., Letton, A.H., and Wilson, J.P., Retained Common Duct Stones: A New Non-Operative Technique for Treatment, *Surg.* 66:291; 1969.
11. Fennessy, J.J., and You, K.D., A Method for the Expulsion of Stones Retained in the Common Bile Duct, *Am. J. Roentgenol.* 110:256; 1970.
12. Mazzariello, R., Removal of Residual Tract Calculi Without Reoperation, *Surg.* 67:566; 1970.
13. Magarey, C.J., Non-Surgical Removal of Retained Biliary Calculi, *Lancet* 1:1044; 1971.
14. Mahorner, H.R., and Bean, W.J., Removal of a Residual Stone from the Common Bile Duct Without Surgery, *Ann. Surg.* 173:857; 1971.
15. McCombs, P.R., Quarantillo, Jr. E.P., and Seltzer, M.H., Heparin Treatment of Common-Duct Stone, *N. Engl. J. Med.* 289:106; 1973.

Continuing Educational Opportunities

From The
KMA Postgraduate Medical
Education Office

IN KENTUCKY

JULY

- 17 "Patient/Public Relations Seminar for the Office Assistant," KMA-sponsored. Holiday Inn North, Lexington
- 19-20 KAFP Park Mammoth Seminar, "Diabetes and Related Complications," Park City

SEPTEMBER

- 15-21 Fifth Family Medicine Review*, University of Kentucky Medical Center, Registration fee: \$195; Lexington
- 24-26 KMA Annual Meeting, Ramada Inn/Bluegrass Convention Center, Louisville

OCTOBER

- 6-12 Fifth Family Medicine Review*, University of Kentucky Medical Center, Registration fee: \$195; Lexington
- 25-26 Second Annual Symposium on "Acute Respiratory Insufficiency,"** Department of Anesthesiology, University of Louisville School of Medicine, Louisville

NOVEMBER

- 7-8 Eighth Annual Newborn Symposium, Health Sciences Center Auditorium, University of Louisville School of Medicine, Louisville. For information write Billy Andrews, M.D., 200 E. Chestnut St., Louisville 40202

IN SURROUNDING STATES

SEPTEMBER

- 14 Annual Seminar, "Industrial Injuries of the Hand," Clopton Auditorium, Barnes and Allied Hospitals, St. Louis

*For further information contact Ronald D. Hamilton, M.D., Director, Continuing Education, College of Medicine, University of Kentucky, Lexington 40506

**For further information contact Gerald D. Swim, Director, Office of Continuing Education, University of Louisville School of Medicine, Health Sciences Center, Louisville, Kentucky 40201

Letters To The EDITOR

The Letters To The Editor column is a means for the KMA physicians to express their opinions and viewpoints on varied topics. If you have an item you would like brought before your fellow practitioners, please submit it to Letters To The Editor, Kentucky Medical Association, 3532 Ephraim McDowell Dr., Louisville, Kentucky 40205. Communications should not exceed 250 words. The right to abstract or edit is reserved by the editors of *The Journal*. Names will be withheld upon request, but anonymous letters will not be accepted.

Dear Editor:

I was very pleased in reading the editorial entitled "Reflection on Colonoscopy", which appeared in the Journal of the Kentucky Medical Association, Volume 72, May 1974, pages 286-287. Experience at our institution over the past two years agrees with that of Doctor Knutson and associates.

However, I am pleased to see that there is an increasing interest in the use of the colonoscope. Furthermore, I envision the replacement of the rigid proctosigmoidoscope with a suitable, short, flexible scope in the very near future. When this does occur I would hope that more and more physicians become acquainted with the use of the scope.

A one or two day workshop on colonoscopy conducted by Doctor Knutson and colleagues might very well allay his fears as expressed in his editorial.

R. S. Berardi, M.D.
Lexington

WATCH AUGUST JOURNAL

for


Complete ANNUAL MEETING Details

September 24-26

Louisville

Integument!

Our skin—the human integument covers us, defines us, protects us. But skin is subject to cuts, burns, abrasions. And infections. Neosporin Ointment fights infection by providing broad antibacterial action against susceptible skin invaders. It contains antibiotics that are rarely used systemically, reducing the risk of sensitization.



INDICATIONS: Therapeutically, used as an adjunct to appropriate systemic therapy for topical infections, primary or secondary, due to susceptible organisms, as in:

- infected burns, skin grafts, surgical incisions, otitis externa
- primary pyodermas (impetigo, ecthyma, sycosis vulgaris, paronychia)
- secondarily infected dermatoses (eczema, herpes, and seborrheic dermatitis)
- traumatic lesions, inflamed or suppurating as a result of bacterial infection.

Prophylactically, the ointment may be used to prevent bacterial contamination in burns, skin grafts, incisions, and other clean lesions. For abrasions, minor cuts and wounds accidentally incurred, its use may prevent the development of infection and permit wound healing.

CONTRAINDICATIONS: Not for use in the external ear canal if the eardrum is perforated. This product is contraindicated in those individuals who have shown hypersensitivity to any of the components.

PRECAUTION: As with other antibiotic preparations, prolonged use may result in overgrowth of nonsusceptible organisms and/or fungi. Appropriate measures should be taken if this occurs. Articles in the current medical literature indicate an increase in the prevalence of persons allergic to neomycin. The possibility of such a reaction should be borne in mind.

Complete literature available on request from Professional Services Dept. PML.

NEOSPORIN[®] Ointment

(POLYMYXIN B-BACITRACIN-NEOMYCIN)

Each gram contains: Aerosporin[®] brand Polymyxin B Sulfate 5,000 units; zinc bacitracin 400 units; neomycin sulfate 5 mg. (equivalent to 3.5 mg. neomycin base); special white petrolatum q.s. In tubes of 1 oz. and ½ oz. and ⅓ oz. (approx.) foil packets.



Wellcome

Burroughs Wellcome Co.
Research Triangle Park
North Carolina 27709



The Antacid Analogy



Indications: Pro-Banthine is effective as adjunctive therapy in the treatment of peptic ulcer. Dosage must be adjusted to the individual.

Contraindications: Glaucoma, obstructive disease of the gastrointestinal tract, obstructive uropathy, intestinal atony, toxic megacolon, hiatal hernia associated with reflux esophagitis, or unstable cardiovascular adjustment in acute hemorrhage.

Warnings: Patients with severe cardiac disease should be given this medication with caution.

Fever and possibly heat stroke may occur due to anhidrosis.

In theory a curare-like action may occur, with loss of voluntary muscle

control. For such patients prompt and continuing artificial should be applied until the drug effect has been exhausted.

Diarrhea in an ileostomy patient may indicate obstruction; possibility should be considered before administering Pro-Banthine.

Precautions: Since varying degrees of urinary hesitancy may be experienced by elderly males with prostatic hypertrophy, such patients should be advised to micturate at the time of taking the medication.

Overdosage should be avoided in patients severely ill with colitis.

Adverse Reactions: Varying degrees of drying of salivary secretions.

Therapeutic comparisons in peptic ulcer.

Acids have only one mode of action to relieve ulcer pain...

Pro-Banthine® has four propantheline bromide

Acids:

Antacids relieve ulcer pain by neutralizing gastric acid. Their action is relatively short-lived and they have only one mode of action.

Pro-Banthine:

Pro-Banthine suppresses gastric acid secretion. The antisecretory properties of propantheline bromide are well established. By effectively blocking vagotonic impulses Pro-Banthine suppresses gastric secretion to reduce both total and free acid.

Pro-Banthine helps relieve pain.

Pro-Banthine relieves ulcer pain by reducing gastric acid secretion and the motility and spasm of the gastrointestinal tract.

Pro-Banthine reduces acidity without subsequent acid rebound. The capacity of Pro-Banthine to reduce the secretion of total and free acid in the stomach has been demonstrated in scores of studies. None has demonstrated any significant evidence of acid rebound.

Pro-Banthine activity lasts about six hours. The effect of a single therapeutic dose (15 mg.) of Pro-Banthine lasts about six hours.* Pro-Banthine P.A.®, the prolonged-acting form, is active from 8 to 12 hours. Thus Pro-Banthine may be used to suppress acid, spasm, and pain around the clock, even during the sleeping hours when antacids, to be effective, must be taken almost hourly.

*Innes, I. R., and Nickerson, M., in Goodman, L. S., and Gilman, A. (editors): The Pharmacological Basis of Therapeutics, ed. 4, New York, The Macmillan Company, 1970, p. 537.

Pro-Banthine complements and enhances the action of antacids.

SEARLE

Searle & Co.

San Juan, Puerto Rico 00936

Address medical inquiries to: G. D. Searle & Co.
Medical Department, Box 5110, Chicago, Ill. 60680

as well as mydriasis and blurred vision. In addition the following side effects have been reported: nervousness, drowsiness, dizziness, headache, loss of the sense of taste, nausea, vomiting, constipation and allergic dermatitis.

Dosage and Administration: The recommended daily dosage for adults is one 15-mg. tablet with meals and two at bedtime. Subsequent adjustment to the patient's requirements and tolerance must be

Pro-Banthine P.A.—Each tablet of Pro-Banthine P.A. (propantheline bromide) contains 30 mg. of the drug in the form of sustained-release or

timed-release beads; on ingestion about half of the drug is released within an hour and the remainder continuously as earlier increments are metabolized. Thus the result is even, high-level anticholinergic activity maintained all day and all night in most patients with only two tablets daily. Some patients may require one tablet every eight hours.

The contraindications and precautions applicable to Pro-Banthine 15 mg. should be observed.

How Supplied: Pro-Banthine is supplied as tablets of 15 and 7.5 mg., as prolonged-acting tablets of 30 mg. and, for parenteral use, as serum-type vials of 30 mg.

Before prescribing, see complete prescribing information in SK&F literature or PDR. The following is a brief summary.

Indications: Edema associated with congestive heart failure, cirrhosis of the liver, the nephrotic syndrome; steroid-induced and idiopathic edema; edema resistant to other diuretic therapy. Also, mild to moderate hypertension.

Contraindications: Pre-existing elevated serum potassium. Hypersensitivity to either component. Continued use in progressive renal or hepatic dysfunction or developing hyperkalemia.

Warnings: Do not use dietary potassium supplements or potassium salts unless hypokalemia develops or dietary potassium intake is markedly impaired. Enteric-coated potassium salts may cause small bowel stenosis with or without ulceration. Hyperkalemia (>5.4 mEq/L) has been reported in 4% of patients under 60 years, in 12% of patients over 60 years, and in less than 8% of patients overall. Rarely, cases have been associated with cardiac irregularities. Accordingly, check serum potassium during therapy, particularly in patients with suspected or confirmed renal insufficiency (e.g., elderly or diabetics). If hyperkalemia develops, substitute a thiazide alone. If spironolactone is used concomitantly with 'Dyazide', check serum potassium frequently — both can cause potassium retention and sometimes hyperkalemia. Two deaths have been reported in patients on such combined therapy (in one, recommended dosage was exceeded; in the other, serum electrolytes were not properly monitored). Observe patients on 'Dyazide' regularly for possible blood dyscrasias, liver damage or other idiosyncratic reactions. Blood dyscrasias have been reported in patients receiving Dyrenium (triamterene, SK&F). Rarely, leukopenia, thrombocytopenia, agranulocytosis, and aplastic anemia have been reported with the thiazides. Watch for signs of impending coma in acutely ill cirrhotics. Thiazides are reported to cross the placental barrier and appear in breast milk. This may result in fetal or neonatal hyperbilirubinemia, thrombocytopenia, altered carbohydrate metabolism and possibly other adverse reactions that have occurred in the adult. When used during pregnancy or in women who might bear children, weigh potential benefits against possible hazards to fetus.

Precautions: Do periodic serum electrolyte and BUN determinations. Do periodic hematologic studies in cirrhotics with splenomegaly. Anti-hypertensive effects may be enhanced in post-sympathectomy patients. The following may occur: hyperuricemia and gout, reversible nitrogen retention, decreasing alkali reserve with possible metabolic acidosis, hyperglycemia and glycosuria (diabetic insulin requirements may be altered), digitalis intoxication (in hypokalemia). Use cautiously in surgical patients. Concomitant use with antihypertensive agents may result in an additive hypotensive effect.

Adverse Reactions: Muscle cramps, weakness, dizziness, headache, dry mouth; anaphylaxis; rash, urticaria, photosensitivity, purpura, other dermatological conditions; nausea and vomiting (may indicate electrolyte imbalance), diarrhea, constipation, other gastrointestinal disturbances. Rarely, necrotizing vasculitis, paresthesias, icterus, pancreatitis, and xanthopsia have occurred with thiazides alone.

Supplied: Bottles and Single Unit Packages of 100 capsules.

SK&F CO.

Carolina, P.R. 00630

Subsidiary of SmithKline Corporation

THE MARATHON WINNER LOSES SERUM POTASSIUM

as a result of intensive physical training.*



MANY HYPERTENSIVE PATIENTS LOSE POTASSIUM[†]

from therapy with potassium-wasting diuretics.

DYAZIDE[®]

Trademark

Each capsule contains 50 mg. of Dyrenium[®] (brand of triamterene) and 25 mg. of hydrochlorothiazide.

SPARES THE HYPERTENSIVE PATIENT'S POTASSIUM AS IT LOWERS BLOOD PRESSURE.

*Serum Potassium Level Drops During Long-Term Exercise, *Medical Tribune*, July 4, 1973.

†No implication that 'Dyazide' is useful in preventing K⁺ loss in athletes is intended.



GRAND ROUNDS



The University of Kentucky College of Medicine

This Journal feature will be presented alternately by the University of Louisville and the University of Kentucky Departments of Medicine and Departments of Surgery. We hope to have these features revolve around subjects of immediate practical interest to the practicing physician; and, for those of us not able to attend grand rounds in the teaching centers as often as we might, we hope this will represent a bit of a refresher course.

Facial Trauma—Initial Evaluation and Management*

FACIAL trauma deserves special attention, for an understanding of the principles involved in initial management can prevent irreparable damage to function as well as appearance. Because of the broad implications in the management of a multiple-trauma victim who may also have pre-existing medical problems, it is important that an experienced physician have overall responsibility for the patient's care.¹

The purpose of this discussion is to illustrate some of the principles of early management in facial trauma which may be useful to those physicians who see major facial trauma relatively infrequently, perhaps while in the course of providing emergency room coverage.

Initial General Evaluation

Sympathetic reaction to grotesque facial trauma can result in distraction and diminished efficiency in the emergency room. The goals and priorities in treating such patients must therefore be kept in mind. The two major life-threatening hazards to a patient with major facial trauma are airway obstruction and hemorrhage.

Assuring a good airway is the first priority in managing any kind of trauma patient and is especially true in facial trauma. An airway is presumed to be obstructed if no air can be heard or felt moving in and out of the victim's mouth or nose; attempted respiratory movements of chest and abdomen may be apparent. The oropharynx must be cleared quickly of blood, vomitus, fractured teeth, or broken dentures by scooping such materials out digitally

in combination with a suction apparatus. A comminuted mandibular fracture in a supine patient may permit oral soft tissues to fall posteriorly, causing airway obstruction; this obstruction can be relieved by forward traction on the mandible. In the absence of spinal injury or other significant injuries, the lateral decubitus position is the safest and most comfortable position for the patient. Gravity thus aids in keeping the oropharynx clear of secretions and unsupported soft tissues.

Brisk hemorrhage from facial lacerations can be quite alarming but usually can be controlled with direct digital pressure or with compressive dressings. Attempts at blind clamping of bleeding vessels should be avoided since additional damage to structures such as the facial nerve may result. Unremitting oral and nasal hemorrhage secondary to facial fractures may require packing or, in extreme cases, ligation of the external carotid arteries.

Soft Tissue Injury

Careful physical examination and inventory of the facial wounds provide the necessary information for accurate diagnosis.

Injury to any of the branches of the facial nerve should be suspected if a laceration involves the lateral aspect of face; diagnosis can be established by observing facial muscle activity as the patient attempts to whistle, say "E", wrinkle his nose, close his eyelids tightly, or wrinkle his forehead in extreme upward gaze. A nerve stimulator may be used in special circumstances such as in an unconscious or anesthetized patient. Such testing must be performed prior to infiltration of the wounds with a local anesthetic agent which necessarily paralyzes the adjacent muscles. If injury to the

*From the Division of Plastic Surgery, University of Kentucky Medical Center, Lexington, Kentucky 40506.

parotid duct is suspected, confirmation can be obtained by passing a probe retrograde through Stensen's duct.

Suspected injury to the ocular globe should be evaluated by an ophthalmologist. Such an examination may also reveal previously undiagnosed ocular disease and thereby preclude misunderstandings about the role of a recent trauma in a convalescing patient's extant visual difficulties.

Skeletal Injury

Gross skeletal injury can usually be diagnosed by careful observation and palpation. Radiographs are a useful adjunct. Since the quality of films is usually disappointing if they are obtained in an agitated or uncooperative patient or during off-hours, more meaningful information will be available by postponing the studies until more ideal circumstances exist.

Epistaxis, swelling, and tenderness in association with gross deviation are common findings in nasal fractures. Many unnecessary radiographs are obtained in order to confirm the obvious.

Isolated fracture of the zygoma is usually the result of a blow with a fist or other blunt object and gives the appearance of flattening of the malar eminence. Initial edema may mask temporarily the extent of the deformity. Other physical findings may include a palpable "step-off" on the infraorbital rim and hypesthesia in the upper lip, tip of nose, and cheek. Significant associated fracture of the contiguous orbital floor may cause entrapment of extraocular muscles or other periorbital tissues; this is manifested by diplopia and limitation of motion of the affected globe.

Fractures of the middle third of the face (predominately maxilla) may be just above and parallel to the palate (Le Fort I), may include the nasal pyramid plus maxilla (Le Fort II) or may totally disjoin the facial skeleton from the cranium (Le Fort III). All three types of fracture have in common mobility of the upper alveolar arch which can be tested for by grasping and moving the upper anterior teeth.

Mandibular fractures are frequently multiple and usually have associated gingival lacerations if the anterior arch is involved. There may be asymmetry of mandibular contour, limitation of mandibular excursion, and dental malocclu-

sion. Since small aberrations of interdental occlusal relationships are readily appreciated by the patient, he can be asked to bite his "back teeth" in order to demonstrate the existence of a malocclusion.

Role of X-ray

X-ray studies play a definite but not exclusive role in evaluating the extent of facial skeletal injury and in confirming a clinical diagnosis.

Gross fractures of facial bones are detectable by physical examination, in which case x-rays are not necessary in making the diagnosis. In other instances significant fractures may not be visualized by x-ray as a result of patient-positioning and the presence of many superimposed structures which obscure detail. There is no need to obtain facial skeleton radiographs as an emergency unless the patient is going to undergo reduction of his facial fractures immediately.

The most useful single study is a Waters' view which requires that the patient be in a prone position. If the patient's condition precludes a prone position, reversed Waters' view may be substituted. Other useful views include the Townes, lateral mandibular views of the mandible, and the mental-vertical view.

Repair of Small Lacerations

Following detailed evaluation of the patient and after injury to the facial nerve has been confirmed or ruled out, the laceration may be anesthetized by infiltration of a local anesthetic agent with or without added vasoconstrictor. Minimal discomfort to the patient ensues if the infiltrating needle is introduced via the wound itself rather than through the surrounding intact skin. The skin should then be cleansed with a mild surgical soap and the wound should be irrigated copiously with normal saline. After foreign material and necrotic tissue have been removed the wound may be closed in layers using absorbable suture material in the subcutaneous and dermal layers (4-0 or 5-0) and fine non-absorbable material (5-0 or 6-0) in the skin margins. Emphasis is given to using the finest suture material possible while taking the smallest necessary bites of tissue. An unsightly and difficult to revise scar frequently results from the injudicious use of heavy suture material which is tied down tightly and left in

place for long periods of time.

If for some reason, for example the need for transfer to another hospital, closure cannot be attempted immediately, the wounds should be irrigated copiously with saline and dressed with saline-soaked sponges.

Repair of Facial Bone Fractures

Definitive reduction and fixation of facial bone fractures can be delayed in adults for 10-14 days, if necessary, without significant compromise to the long-term result. When either the mandible or maxilla are involved, the most important functional consideration is restoration of proper dental occlusal relationship. When these structures are involved, the teeth usually must be maintained in occlusion by some means of intermaxillary fixation for four to six weeks. A variety of techniques are available for internal and external fixation of man-

dibular and facial bone fractures, but a detailed discussion of these is not within the scope of this presentation.

Summary

Some principles in the initial evaluation and management of facial injuries have been presented. In the course of evaluating patients with facial trauma, the presence of pre-existing disease or the possibility of non-facial injuries must be considered as an integral part of total patient management.

HAN S. LEE, M.D.
W. MICHAEL BRYANT, M.D.

References

1. Gwyn, P. J., Carraway, J., Horton, C. E., Adamson, J. E. and Mladick, R. A., Facial fractures—Associated injuries and complications. *Plastic and Reconstructive Surgery* 47:225-230, March 1971.



EYES RIGHT! ...to SOUTHERN OPTICAL

LOUISVILLE Southern Optical Bldg. — 640 S. 4th
Contact Lenses — 640 S. 4th
Medical Towers Bldg., Floyd & Gray
Doctors Office Bldg., Liberty at Floyd
Medical Arts Bldg., 1169 Eastern Parkway
Professional Bldg. East, 3101 Breckinridge Lane
Medix Bldg. — Adj. S.S. Mary & Elizabeth Hosp.

ST. MATTHEWS 313 Wallace Center and 108 McArthur Drive

NEW ALBANY Professional Arts Bldg., 1919 State Street

BOWLING GREEN 524 East Main Street

OWENSBORO Doctors Bldg., 1001 Center Street



*Southern
Optical*

CHARGE ACCOUNTS
INVITED
BankAmericard
Master Charge



EDITORIALS



T A P

THE medical audit process has been a part of the hospital practice of medicine for many years. However, in most institutions this process consists of an occasional review of a few charts which are brought to the attention of a small committee generally because of some deviation from the usual and customary medical procedures.

Such a system of medical care evaluation has many disadvantages. First of all, this type of review focuses on individual cases and hence it is difficult, if not impossible, to draw conclusions regarding patterns of medical care. In this type of system the physicians must do most of the work. Therefore, the audit becomes a time-consuming task for the staff physician. A system of this kind does not permit review by most of the physicians in a particular department according to a standard of care they have all established. Rather, it relies on the individual subjective judgments of the physicians reviewing the charts. It becomes a "one on one" situation in which clinician "X" decides whether he approves of the actions of clinician "Y" in a particular case. Of necessity, this places the responsibility of the evaluation on the reviewer rather than the system.

Viewed in the light of these disadvantages, it seems obvious that the traditional medical care audit is indeed inadequate. Therefore, if hospitals are going to effectively evaluate medical care in their institutions, and indeed they will be required to do so by law (*P.L. 92-603, Sections 1151-1170 of the Social Security Amendments of 1972*), a new system of medi-

cal audit must be established.

In the past two years the Joint Commission on Accreditation of Hospitals has focused on developing a viable, efficient system for patient care evaluation. This system of retrospective patient care audit in hospitals is the major subject of the TAP (Trustee-Administrator-Physician) Institutes conducted throughout the country by the JCAH. One of these seminars was recently held in Louisville.

The auditing system of the JCAH seems to possess those qualities lacking in our traditional system. First, it is objective, utilizing criteria established by the medical staff as measures. Second, it is efficient, utilizing non-medical personnel for the time-consuming tasks not requiring clinical judgment. Third, it focuses on patterns of care rather than isolated cases and shifts the responsibility of judgment from the individual reviewer to the system itself. And perhaps most important, it emphasizes appropriate corrective action based on the findings of the audit. Such action may call for specific educational programs, counseling of individual physicians, changes in medical staff or administrative policies, and rarely may necessitate a change in an individual's clinical privileges.

How well does the JCAH system actually work? It apparently has functioned well in many of the hospitals utilizing it. Recently the federal government approved this system of medical audit for fulfilling PSRO function. All things being considered, it would appear to this unsophisticated observer to be worthy of a trial.

DONALD T. VARGA, M.D.



ORGANIZATION SECTION



1974 KMA Annual Meeting, September 24-26 in Louisville, Receives Accreditation for Outstanding Scientific Program

Four general scientific sessions, meetings of 18 specialty groups, two meetings of the House of Delegates, and the President's Luncheon are highlights of the 1974 KMA Annual Meeting to take place September 24-26 at the Ramada Inn/Bluegrass Convention Center in Louisville.

Scientific presentations will center around the themes of the sexes, hypertension, fetal and neonatal health, and food facts and fads. Two nationally known guest speakers who will deal with the latter theme will be William J. Darby, M.D., New York City and Cortez F. Enloe, M.D., Annapolis.



Doctor Darby



Doctor Enloe

Doctor Darby, who is Professor of Medicine in Nutrition at Vanderbilt University School of Medicine, is also President of The Nutrition Foundation, Inc. He is a member of the advisory council of the *Journal of Nutrition Education* and is currently President of the Citizens' Commission on Science, Law and the Food Supply.

The President and Editor of *Nutrition Today, Inc.*, Doctor Enloe will also speak during the Thursday morning session. A flight surgeon during World War II, Doctor Enloe served as Director of the Medical Services Branch of the U.S. Strategic Bombing Survey in Europe. He has organized many activities concerned with nutrition, drug evaluations, aviation medicine, and emergency medical care plans.

In addition to the highlights mentioned above, the annual session will also include the Annual Convention of the Woman's Auxiliary to KMA, more than 75 scientific and technical exhibits, U of L alumni reunions, and the annual KEMPAC Seminar.

This year's scientific program has been fully accredited once more by the AMA under Category I of the Physician's Recognition Award. In addition, the American Academy of Family Physicians have

made the program acceptable for 14 prescribed hours of credit. The August issue of *The Journal* will have full details of the 1974 Annual Meeting.

1974 Scientific Program Outline Released for Annual Meeting

The following preliminary scientific program for the 1974 KMA Annual Meeting has been released. Each half-day session of the three-day program will feature a 30-minute intermission so physicians may visit the scientific and technical exhibits.

TUESDAY, SEPTEMBER 24—Morning Session THEME: "The Sexes"

Opening Ceremonies

"*Life Style Options and the Physician*"—Michael Daly, M.D., Philadelphia

"*Sex Today—The Making of New Myths*"—Homer Martin, M.D., Louisville

"*Current Concepts in Transexual Surgery*"—John Hoopes, M.D., Baltimore

"*The University of Minnesota Transexual Research Study*"—A. Colin Markland, M.D., Minneapolis

"*Current Concepts in Marital Therapy*"—James McNeely, M.D., Louisville

"*Clinical Significance of Skin Lesions in the Diagnosis of Gastrointestinal Malignancies*"—Morris Samitz, M.D., Philadelphia

Nine of the 18 participating specialty groups will meet simultaneously at 2 p.m. No general session will be held at that time.

WEDNESDAY, SEPTEMBER 25—Morning Session THEME: "Hypertension"

"*Hypertension: Why Do We Treat It?*"—Donald Vidt, M.D., Cleveland

"*Relationship of Hypertension to Coronary Heart Disease*"—Simon Koletsky, M.D., Cleveland

"*The Surgeon's Role in Treating Hypertension*"—Ben Eiseman, M.D., Denver

"*Drug Treatment of Hypertension*"—Eliseo Perez-Stable, M.D., Miami

"*Relationship of Hypertension to Acute Dissecting Aneurysm*"—Myron Wheat, M.D., Louisville

"*Problems in the Treatment of the Hypertensive Patient*"—Walter Kirkendall, M.D., Houston

"*The Office Examination of the Child with Spinal Problems*"—Anthony Bianco, M.D., Rochester

(Continued on next page)

Afternoon Session
THEME: "Fetal and Neonatal Health"

- "Intensive Care—Intrauterine Style"*—Watson Bowes, M.D., Denver
"Effects of Obstetric Anesthesia on the Fetus and Neonate"—Gertie Marx, M.D., Bronx
"Follow-up of Severe Lung Disease in the Newborn"—Ernest Cotton, M.D., Denver
"Regionalization of Obstetric Care"—Sprague Gardiner, M.D., Indianapolis
"The Values and Limitations of Chest X-rays in the Newborn"—Loretta Shearer, M.D., Louisville
"Advances in Neonatology"—Billy Andrews, M.D., Louisville

THURSDAY, SEPTEMBER 26—Morning Session
THEME: "Food Facts and Fads"

- "Food, Exercise, and the First Law"*—Walter Bloom, M.D., Atlanta
"Nutrition and Oral Disease—The Factual and the Fad"—Donald Gambrall, D.M.D., Louisville
"Psychological Factors in Obesity"—Beverley Mead, M.D., Omaha
"Food Facts and Myths: From Unicorn to Hogwash"—William Darby, M.D., New York
"Controversies in Nutrition"—Cortez Enloe, M.D., Annapolis
"Food Allergy, the 'Red Herring' of Otolaryngology"—S. C. Missal, M.D., Cleveland

The remaining nine specialty groups will meet at 2 p.m. No general session is scheduled for the afternoon.

President's Luncheon to Feature Lt. Governor Julian Carroll

The guest speaker for this year's President's Luncheon will be the Honorable Julian M. Carroll,



Lt. Governor Carroll

Lieutenant Governor of the Commonwealth of Kentucky. The Luncheon, which will be held in Belle Hall of the Bluegrass Convention Center, Wednesday, September 25 at 11:50 a.m., will also include the presentation of KMA's top awards and the installation of the new KMA President, Hoyt D. Gardner, M.D., Louisville.

Lt. Governor Carroll has been active in Kentucky politics for over 13 years. Prior to his inauguration as Lt. Governor in 1971, he was a member of the House of Representatives from McCracken County. In 1968, while serving his fourth consecutive term, he was elected Speaker of the House and was reelected to that position in 1970.

A member of the Kentucky and American Bar Associations, Lt. Governor Carroll was named in 1966 as Moderator of the Kentucky Synod for the Cumberland Presbyterian Churches, the highest lay position of that organization.

Kentucky Peer Review Organization Holds Organizational Meeting

The Board of Directors of the Kentucky Peer Review Organization held their first meeting on June 6 and elected officers, appointed an Executive Committee, and discussed organizational matters. KPRO was recently created by the KMA Board of Trustees to perform ongoing automated peer review and to contract with the Federal government for PSRO purposes.

Officers elected were David A. Hull, M.D., Lexington, President; W. Neville Caudill, M.D., Louisville, Vice President; and James B. Holloway, Jr., M.D., Lexington, Secretary-Treasurer. Appointed to the KPRO Executive Committee in addition to the officers were Ballard W. Cassady, M.D., Pikeville; and David B. Stevens, M.D., Lexington. The officers and Directors will serve until the first meeting of the membership when a new Board will be elected.

In other business, the Board voted to headquarter the new organization in Lexington where an office has been opened at Suite 404, 1800 Nicholasville Road. Paul V. Osborn, a native Kentuckian, was employed as executive consultant for KPRO, and Bylaws were adopted.

A grant contract has been negotiated by KPRO with the U.S. Department of Health, Education, and Welfare to conduct PSRO planning operations over a six-month period. In discussing initial goals, the KPRO Board agreed that membership recruitment should be a priority task, and contact with all state physicians will be made in the near future.

KAFP Officers Elected, July Seminar Planned

Francis J. Halcomb, Jr., M.D., Scottsville, was named President-Elect of the Kentucky Academy of Family Physicians at their annual meeting held May 15-18 in Louisville. Installed as President for the 1974-75 Academy year was Robert M. Blake, M.D., Maysville.

The Park Mammoth Seminar of the Academy will be held July 19-20. An extensive scientific program will deal with "Diabetes and the Family Physician." Guest speakers from Vanderbilt University, University of Chicago, and University of Louisville, will participate in the two-day sessions.

H. B. McWhorter, M.D., Ashland, was recently elected President of the Kentucky Heart Association at their annual meeting in Louisville. **Allan M. Lansing, M.D.**, Louisville, was elected 1st Vice-President.

Charles C. Kissinger, M.D., Henderson, was elected President-Elect of the Kentucky Surgical Society at their annual meeting in May. **W. T. Schwartz, M.D.**, Lexington, was elected Secretary-Treasurer. **Samuel D. Weakley, M.D.**, Louisville, will assume the office as current President.

1974 Emergency Health Care Seminar

Scenes from Simulated Accident and Rescue Demonstration



Annual Emergency Care Seminar
Features Rescue Demonstration

Approximately 350 physicians, nurses, emergency medical technicians, and other health professionals attended the 1974 Emergency Health Care Seminar held May 30-31 in Louisville.

Sponsored by KMA, the Kentucky Hospital Association, the Kentucky Nurses Association, and the Kentucky Chapter, American College of Emergency Physicians, this year's session was highlighted by a rescue demonstration held on May 30. Various types of rescue equipment and personnel were on hand to "administer" emergency medical care in a simulated traffic accident. Photos above depict a few scenes from the demonstration.

Faculty members from the University of Louisville and University of Kentucky medical schools, as well as physicians in private practice, participated on the program for the two-day session. Captain John Waters, Director of the Department of Public Safety in Jacksonville, and Teresa Romano, R.N., Operations Director of Illinois Department of Public Health in Chicago, were featured luncheon speakers.



General LEASING

*Doctor! This is Your Own Plan
ENDORSED BY THE*

Kentucky Medical Association

for the leasing of

cars—all makes & models,
Medical, Surgical & Laboratory
Equipment
and Office Furnishings.

**13 YEARS EXPERIENCE
IN THIS FIELD**

General Leasing CORPORATION

121 Bauer Ave. St. Matthews

(502) 896-0383

GENERAL SURGEON

Board certified/eligible. Office space (for thriving practice) provided in 110 bed Hospital in excellent community. Please reply to **David E. Burgio, Administrator, Berea Hospital, Inc., Berea, Kentucky 40403**

(606) 986-3151

PHYSICIANS

Private practice (solo, partnerships, groups) opportunities exist in several communities within the state of Kentucky (Morganfield, Mayfield, Bowling Green, and Frankfort). As a public service to these communities, we are performing a free, no obligation, service acting as a liaison between physicians interested in practice opportunities and communities in need of their services. These communities have modern, JCAH approved hospitals, modern offices, and recognized needs for additional physicians.

For details call collect 615-327-9551 or write with C.V. to:

*E. J. Ryan, Jr., Corporate Director,
Medical Relations
Hospital Corporation of America
One Park Plaza
Nashville, Tennessee 37203*

PHYSICIANS WANTED

General Practitioner — Excellent consultation and facilities available. 100-bed general Medical/Surgical Hospital. Active Outpatient Clinic. Many benefits — Salary dependent on qualifications and experience. Exciting and challenging career in progressive Co-Educational Institution. For additional info please contact *L. G. Grossman, Warden, or Jimmie D. Hawthorne, M.D., Chief, Mental Health, Federal Correctional Institution, P.O. Box 2000, Lexington, Ky. 40507; phone (606) 255-6812.*

AN EQUAL OPPORTUNITY EMPLOYER

Synthroid[®]

(sodium levothyroxine)



Supplied: **Tablets:** 0.025 mg., 0.05 mg., 0.1 mg., 0.15 mg., 0.2 mg., 0.3 mg., 0.5 mg., scored and color-coded in bottles of 100, 500, and 1000.

Injection: 500 mcg. lyophilized active ingredient and 10 mg. of Mannitol, U.S.P., in 10 ml. single-dose vial, with 5 ml. vial of Sodium Chloride Injection, U.S.P., as a diluent.

Synthroid-T₄



FLINT LABORATORIES
DIVISION OF TRAVENOL LABORATORIES, INC.
Deerfield, Illinois 60015

Opinion & Dialogue

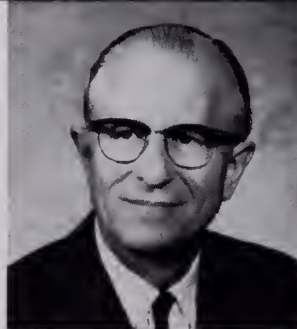
Government Health Official

Henry E. Simmons, M.D.
Deputy Assistant
Secretary for Health
Department of Health,
Education and Welfare



Maker of Medicine

Joseph F. Sadusk, Jr., M.D.
Warner-Lambert Company



Is there a need for a drug compendium?

A drug compendium of the type I envision would fill a definite need for the busy physician. It would give him the information necessary for

a drug intelligently, and it would do so in a clear, concise, convenient, objective and balanced fashion.

What a Compendium Should Contain

I believe the compendium should inform the doctor what drug will do, when he should use it, for what type of patient, for how long, in what dose, what benefits his patient is likely to obtain, the risks involved, and cross-reactions with other drugs.

The information would be based on the package insert. It should have the same legal status as a complete compendium. A complete and current compendium might even eliminate the need for

A drug compendium, preferably a compendium, should, in my opinion, be private, not federal sponsorship. They should contain comprehensive listings of drugs available for prescribing. They should be single, legible print, in volumes of reasonable size, updated quarterly or semiannually, and completely revised every

Function of a Compendium

A compendium should furnish the following information: drugs in the following order: indications for use, side effects, drug reactions, contraindications, drug interactions, drug dosages, the dosage forms marketed, and prices. Prices should not be included because they vary so widely and change rapidly.

No compendium should list drugs of choice or discuss relative efficacy. Such questions must be left for the practicing physician to decide, whether on the basis of the medical literature, his own clinical experience, or the advice of his colleagues, information supplied by manufacturers, and so on.

Nor should a compendium undertake to educate the doctor how to use drugs. Rather, it should be a reference source designed primarily to refresh his memory of drugs he may not use regularly.

age insert in many in-
his would constitute a
al saving for the manu-

complete compendium,
ean a volume of prohibi-
ou don't need a book
g 25,000 products with
ous amount of repetition.
ugs should be arranged
Mutually applicable infor-
ould be provided, along
discussions pinpointing
es in specific drugs of
Listings would be cross-
a useful way.

Table Documents as Information

ing references such as
he AMA Drug Evaluation
isly useful but they are
e. Either they are not
renced by generic name
t group drugs with simi-
teristics, or they do not
available and legally
drugs. And some of
cted may be very useful.

no way imply control over
itioner's prerogatives.

er Compendium?

acticable, single-volume
um cannot, nor is it
y to, include all drugs on
et today. From my prac-
ternal medicine for some
my experience as a con-
nd as a faculty member
five medical schools, I
mate that a doctor uses
35 drugs regularly. The
sicians' Desk Reference,
ly, contained about
ries.

o whether there should be
compendium, in my opin-
ted earlier, the answer is
re should *not* be one. The
assumes that existing
a are inadequate. We're
f that at all. Whatever its
ions, the present drug
on system in the U.S. is
ntifaceted, pluralistic and
A. Good compendia exist,
other ample sources on
apy, ranging from journal
through AMA Drug Evalu-
company materials. Not
ans may use such
s often or as well as they
ut that is the fault of the
of the sources.
ny event, rather than pro-

On the other hand, drugs made by
more than one supplier, tetracy-
cline for example, may be fully
described a dozen times in the
same book.

While perhaps PDR could be
rearranged and cross-indexed with
generics included, and while the
AMA Drug Evaluation might also
be modified and expanded, I am
not sure that the end result would
have all the attributes required for
a useful compendium. At the same
time, you would run the risk of
amassing a voluminous and un-
wieldy tome.

Should Editorial Comments Accompany the Listings?

Subjective judgments, in my
opinion, have no place in a com-
pendium. However, if there is sub-
stantial evidence based on a sound
body of science concerning rela-
tive efficacy of several drugs, cer-
tainly that information should be
included. The committee of experts
compiling and editing a particular
section would also have to assess

duce another book, it makes much
more sense to work on improving
existing compendia, and perhaps
they could, as knowledge ad-
vances, include more accumulated
clinical data and experience, and
more information on drug interac-
tions and adverse reactions.

Implications of a Federal Compendium

Take a hard look at the impli-
cations of a federal compendium.
It would have the force of law, vir-
tually dictating what drugs to use
and how to use them. In effect, it
would be a regulatory document
with legal or quasi-legal status,
posing medical/legal problems
similar to those the doctor may
now encounter if and when he de-
parts from the provisions of the
package insert. A compendium
under federal aegis would tend to
restrict decisions on drug therapy
to one orthodox level—a most
dangerous trend for medicine.

New Compendium — A Medical Option

I detect no ground swell of
initiative or support whatsoever for
a federal compendium—or, for
that matter, for a new compendium
of any type. A 1969 PMA survey
conducted by Opinion Research
Corporation found that only 15 per

and indicate instances where a
meaningful difference between
drugs is pertinent.

Sponsorship, Compilation and Editing

Producing a book like this
would undoubtedly be difficult and
demanding. It would obviously take
a great deal of talent and exper-
tise, and would require a varied
and experienced group, ranging
from writers and editors to highly
skilled clinicians and pharmacolo-
gists. Style, format and clarity of
language would play an important
part in determining the usefulness
of the book. And it should be up-
dated periodically and completely
revised annually.

I have no opinion whether the
government or the private sector
should sponsor and/or finance the
compendium. What is most im-
portant is that the compendium be
an authoritative, objective and
useful source of information for
the doctor to have at hand as a
ready reference.

cent of those physicians inter-
viewed felt a new compendium was
needed. And a large majority did
not favor the involvement of the
federal government if one were to
be created, preferring instead a
nongovernmental consortium.

Even if we come to a time
when the medical profession itself
opts for a new kind of compendium,
it should be handled and financed,
ideally, outside both government
and industry. Final review and edi-
torial authority could be delegated,
say, to specialty bodies and medi-
cal societies—but above all, *not*
the government.

Surely the health care system
in the United States has far more
vital matters to consider than the
extensive cost and effort that
would have to go into the prepara-
tion and maintenance of a new,
monolithic compendium, and
especially one bearing the impr-
matur of the federal government.

Opinion & Dialogue

What is your opinion, doctor? We
would welcome your comments.

The Pharmaceutical
Manufacturers Association
1155 Fifteenth Street, N.W.
Washington, D.C. 20005





What does man have in common with Samson?

Neither man nor the gorilla can synthesize vitamin C. Interestingly, the slow loris, a primate much further down the evolutionary scale, can convert L-1,4-gulonolactone to ascorbic acid in its liver and presumably does not require an exogenous source of ascorbic acid.

Because man can neither synthesize vitamin C nor store most of the water soluble vitamins, these nutrients must be replenished continuously in order to

maintain normal tissue levels.

Generally, this is accomplished in his daily diet. But under conditions of illness, stress, in convalescence or following surgery, vitamin stores may be depleted or metabolic demands increased.

In such cases, Surbex-T may be indicated. Surbex-T restores the water-soluble vitamins with each tablet providing 500 mg. of vitamin C plus high potency B-complex.

SURBEX-T[®] 500 mg. of Vitamin C with High Potency B-Complex
Restores what the body cannot effectively store



Before prescribing, please consult the product information, a summary of which follows:

Indications: Relief of anxiety and tension occurring alone or accompanying other disease states.

Contraindications: Patients with known hypersensitivity to the drug.

Warnings: Caution patients about the combined effects with alcohol and CNS depressants. As with all sedating drugs, caution patients in hazardous occupations requiring complete mental alertness (e.g., operating machinery, driving). Though physical and psychological dependence have been reported on recommended use, exercise caution in administering to prone individuals or those who may increase dosage; withdrawal symptoms (including convulsions), following discontinuation of the drug and similar effects seen with barbiturates, have been reported. Use of any drug in pregnancy, lactation, or in women of childbearing age requires that its potential benefits be weighed against its possible hazards.

Precautions: In the elderly and debilitated, and in children over six, limit to the most effective dosage (initially 10 mg less per day) to preclude ataxia or sedation, increasing gradually as tolerated. Not recommended for children under six. Though generally recommended, if combination therapy with other psychotropics seems indicated, carefully consider individual pharmacologic effects, particularly in use of potent drugs such as MAO inhibitors and phenothiazines. Observe usual precautions in presence of impaired renal or hepatic function. Paradoxical reactions (e.g., excitement, stimulation and hyperactivity) have been reported in psychiatric patients and hyperactive aggressive children. Employ usual precautions in treatment of anxiety states with evidence of underlying depression; suicidal tendencies are a present and protective measure necessary. Variable effects on blood pressure have been reported very rarely in patients receiving the drug and oral anticoagulants; causal relationship has not been established clinically.

Adverse Reactions: Drowsiness, dizziness, and confusion may occur, espe-

cially in the elderly and debilitated. These are reversible in most instances by proper dosage adjustment, but are also occasionally observed at the lower dosage ranges. In a few instances syncope has been reported. Also encountered are isolated instances of skin eruptions, edema, minor menstrual irregularities, nausea and constipation, extrapyramidal symptoms, increased and decreased libido—all infrequent and generally controlled with dosage reduction; changes in EEG patterns (low-voltage fast activity) may appear during and after treatment; blood dyscrasias (including agranulocytosis), jaundice and hepatic dysfunction have been reported occasionally, making periodic blood counts and liver function tests

advisable during protracted therapy.

Usual Daily Dosage: Individualize for maximum beneficial effects. *Oral—Adults:* Mild and moderate anxiety and tension, 5 or 10 mg *t.i.d.* or *q.i.d.*; severe states, 20 or 25 mg *t.i.d.* or *q.i.d.* *Geriatric patients:* 5 mg *b.i.d.* to *q.i.d.* (See Precautions.)

Supplied: Librium® (chlordiazepoxide HCl) *Capsules*, 5 mg, 10 mg and 25 mg—bottles of 100 and 500; Tel-E-Dose® packages of 100. Libritabs® (chlordiazepoxide) *Tablets*, 5 mg, 10 mg and 25 mg—bottles of 100 and 500. With respect to clinical activity, capsules and tablets are indistinguishable.



Roche Laboratories
Division of Hoffmann-La Roche Inc
Nutley, N.J. 07110

to help reduce clinically significant anxiety and
thereby help improve patient receptivity

Librium® up to 100 mg daily in
severe anxiety
(chlordiazepoxide HCl)

Please see following page.



Symptom of excessive anxiety:

The patient may have difficulty in accepting medical counsel.

Clinical experience has shown that some unduly anxious patients may tend to deny or minimize their illness and therefore resist seeking

or following medical advice. Through its antianxiety action, adjunctive Librium (chlordiazepoxide HCl) can often calm the emotionally tense pa-

tient, thereby encouraging physician rapport and, on occasion making it easier for the patient to accept medical counsel.

Please see reverse side
for summary of product information.

for relief of excessive anxiety

Librium® 10 mg capsules
(chlordiazepoxide HCl)

ROCHE



AUG 26 1974

The Journal of The KENTUCKY Medical Association

ANNUAL MEETING ISSUE

Transient Pulmonary Infiltrates Following Acute Myocardial Infarction

James A. Schroer, M.D. and Raymond J. Timmerman, M.D.

409

Respiratory Distress Syndrome Treated with Exchange Transfusion

William F. Schnitzker, M.D.

413

KMA Annual Meeting Section

425

Complete Contents on Page 403

1974 KMA ANNUAL MEETING

September 24-26

Ramada Inn/Bluegrass Convention Center

Louisville

Both after



Predominant
psychoneurotic
anxiety

Associated
depressive
symptoms

Before prescribing, please consult complete product information, a summary of which follows:

Indications: Tension and anxiety states; somatic complaints which are concomitants of emotional factors; psychoneurotic states manifested by tension, anxiety, apprehension, fatigue, depressive symptoms or agitation; symptomatic relief of acute agitation, tremor, delirium tremens and hallucinosis due to acute alcohol withdrawal; adjunctively in skeletal muscle spasm due to reflex spasm to local pathology, spasticity caused by upper motor

neuron disorders, athetosis, stiff-man syndrome, convulsive disorders (not for sole therapy).

Contraindicated: Known hypersensitivity to the drug. Children under 6 months of age. Acute narrow angle glaucoma; may be used in patients with open angle glaucoma who are receiving appropriate therapy.

Warnings: Not of value in psychotic patients. Caution against hazardous occupations requiring complete mental alertness. When used adjunctively in convulsive dis-

orders, possibility of increase in and/or severity of grand mal seizures require increased dosage of star convulsant medication; abrupt withdrawal may be associated with temporary increase in frequency and/or severity of seizures. Advise against simultaneous ingestion of alcohol and other CNS depressants. Withdrawal symptoms (seen in those with barbiturates and alcohol) occurred following abrupt discontinuation (convulsions, tremor, abdominal cramps, vomiting and sweat addiction-prone individuals und

Respond to one

According to her major symptoms, she is a psychoneurotic patient with severe anxiety. But according to the opinion she gives of her symptoms, part of the problem could be like depression. Because her problem, although primarily one of excessive anxiety, is often accompanied by depressive symptoms. Valium (diazepam) can provide relief for both—as excessive anxiety is relieved, the depressive symptoms associated with it are also relieved. There are other advantages in using Valium for the treatment of psychoneurotic anxiety with secondary depressive symptoms: the therapeutic effect of Valium is pronounced and long-lasting. This means that improvement is usually apparent in the patient within a few days rather than in a week or

two, although it may take longer in some patients. In addition, Valium (diazepam) is generally well tolerated; as with most CNS-acting agents, caution patients against hazardous occupations requiring complete mental alertness.

Also, because the psychoneurotic patient's symptoms are often intensified at bedtime, Valium can offer an additional benefit. An *h.s.* dose added to the *b.i.d.* or *t.i.d.* treatment regimen can relieve the excessive anxiety and associated depressive symptoms and thus encourage a more restful night's sleep.

For further information on this subject, the following references are provided:

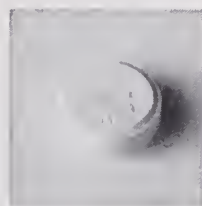
1. Henry BW, *et al*: *Dis Nerv Syst* 30:675-679, Oct 1969.
2. Hollister LE, *et al*: *Arch Gen Psychiatry* 24:273-278, Mar 1971.
3. Claghorn J: *Psychosomatics* 11:438-441, Sept-Oct 1970.

ance because of their predisposition to habituation and dependence. In pregnancy, lactation or women of childbearing age, weigh potential benefit against possible hazard.

Contraindications: If combined with other psychotropic or anticonvulsants, consider the pharmacology of agents employed. Drugs such as phenothiazines, barbiturates, MAO inhibitors or antidepressants may potentiate the effects of Valium. Use with caution in severely depressed, or with latent suicidal tendencies.

Observe usual precautions in impaired renal or hepatic function. Limit dosage to smallest effective amount in elderly and debilitated to preclude ataxia or oversedation.

Side Effects: Drowsiness, confusion, diplopia, hypotension, changes in libido, nausea, fatigue, depression, dysarthria, jaundice, skin rash, ataxia, constipation, headache, incontinence, changes in salivation, slurred speech, tremor, vertigo, urinary retention, blurred vision. Paradoxical reactions such as acute hyperexcited states, anxiety, hallucinations, increased muscle



Valium[®] (diazepam) 2-mg, 5-mg, 10-mg tablets

in psychoneurotic
anxiety states
with associated
depressive symptoms

spasticity, insomnia, rage, sleep disturbances, stimulation have been reported; should these occur, discontinue drug. Isolated reports of neutropenia, jaundice; periodic blood counts and liver function tests advisable during long-term therapy.



Roche Laboratories
Division of Hoffmann-La Roche Inc.
Nutley, New Jersey 07110

A MESSAGE FROM YOUR SPONSORED DISABILITY INSURER:

Insureds never know how good their coverage is until they have a sickness or accident. A lot of contracts look great until you file a claim. Local claim service is the key to good coverage. We pay our claims the day received, if properly completed—in many cases, even when they are not—since so many of your fellow Kentucky physicians are policyholders. As a result, they identify with us and make the necessary corrections. When the insured is seriously ill, we get to know his wife—the burden is upon her. We feel personal attention is much more satisfying than receiving a form letter from Chicago or New York.

Our insureds are our best salesmen. Ask one of your fellow physicians whom you know has had a recent claim how he was treated by us.

A. P. Lee Agency

INSURERS OF PROFESSIONAL GROUPS SINCE 1939

631 Lincoln Federal Building
Louisville, Kentucky 40202
(502) 583-1888

E. W. Ernst, Jr., Administrator • Ray D. Jones, Associate

"Where claim service is most important"

Journal of The K E N T U C K Y Medical Association

- EDITOR
Walter I. Hume, Jr., M.D.
- ASSOCIATE EDITOR
Henry B. Asman, M.D.
- ASSISTANT EDITOR
A. Evon Overstreet, M.D.
- EXECUTIVE EDITOR
Robert G. Cox
- MANAGING EDITOR
Jerry E. Mahoney
- ASSISTANT MANAGING EDITOR
Diane Maxey

- DEPARTMENTAL EDITORS
Charles C. Smith, Jr., M.D., Scientific
John W. Greene, Jr., M.D., Maternal
Mortality

BOARD OF CONSULTANTS
ON SCIENTIFIC ARTICLES

- Term Expires July 1, 1977
- Lowrence C. Goldberg, M.D.
 - Carl H. Scott, M.D.
 - Richard K. Jelsma, M.D.
 - James A. Meyers, M.D.
 - Russell R. Rice, M.D.
 - William J. Collis, M.D.
 - Charles E. Dobbs, M.D.
 - David L. Brown, M.D.

- Term Expires July 1, 1976
- Gehrig M. Robinson, M.D.
 - Mark S. Sexter, M.D.
 - Thomas E. Booth, M.D.
 - Patrick L. Jasper, M.D.
 - Oscar W. Thompson, M.D.
 - Stephen C. Schindler, M.D.
 - Von R. Jenkins, M.D.
 - John W. Miller, M.D.

- Term Expires July 1, 1975
- Robert E. Arnold, M.D.
 - Robert A. Hall, M.D.
 - Chrisman S. Jackson, Jr., M.D.
 - Lofoyette G. Owen, M.D.
 - Anne Richmon, M.D.
 - Ruel T. Routh, M.D.
 - Frank G. Simon, M.D.
 - Leslie Von Nostrand, M.D.

ublished at 3532 Ephraim McDowell Drive,
Louisville, Ky. 40205
Phone (Area Code 502) 452-6324

ubscription \$10 (Members \$5)
ingle Copy \$1

second-class postage paid at Louisville, Kentucky.
ceptance for mailing at special rates postage
rovided in Section 1103, act of Oct. 3, 1917,
uthorized May 25, 1920.

Contents

SCIENTIFIC ARTICLES

- Transient Pulmonary Infiltrates Following Acute Myo-
cardial Infarction
*James A. Schroer, M.D. and Raymond J.
Timmerman, M.D.409*
- Respiratory Distress Syndrome Treated with Exchange
Transfusion
William F. Schnitzker, M.D.413
- A Case of Rheumatoid Arthritis with Crico-Arytenoiditis
(Grand Rounds)
J. W. Hollingsworth, M.D.416

EDITORIAL

- "KMA Week" Is Near419

SPECIAL FEATURE

- KMA Annual Meeting Section425

ORGANIZATION

- Dr. Gardner Elected to Serve on AMA Board of Trustees447
- Drs. Parrott, Gardner Elected at AMA Annual Convention447
- UL Plans "Alumni Weekend" for September 21-22447
- AMA Accredits CME Courses Offered by U of L448
- KMA Provides Placement Service to Physicians, Communities451

REGULAR FEATURES

- President's Page405 Postgraduate Opportunities ..420
- Maternal Mortality406 Woman's Auxiliary446

KENTUCKY MEDICAL ASSOCIATION

BOARD OF TRUSTEES—1973-1974

Officers

President	FRED C. RAINEY 912 Woodland Dr., Elizabethtown 42701 (502) 765-4147 .1974
President-Elect	HOYT D. GARDNER 508 Watterson City Bldg., Louisville 40218 (502) 452-2684 .1974
Immediate Past President	LEE C. HESS 7211 U. S. 42, Florence 41042 (606) 371-1153 .....1974
Vice-President	GABE A. PAYNE 1610 S. Main St., Hopkinsville 42240 (502) 885-8445 ....1974
Secretary	S. RANDOLPH SCHEEN 1163 Medical Arts Bldg., Louisville 40217 (502) 451-1661 .1975
Treasurer	KEITH P. SMITH Medical Arts Bldg., Corbin 40701 (606) 528-3211 .....1975
Speaker, House of Delegates ...	RICHARD F. GREATHOUSE 5 Triangle Center, Louisville 40220 (502) 458-3219 .....1974
Vice-Speaker	CARL COOPER, JR. Bedford 40006 (502) 255-3282 .....1974
Chairman, Board of Trustees ...	BALLARD W. CASSADY Pikeville Medical Bldg., Pikeville 41501 (606) 437-6698 ..1974
Vice-Chairman	PAUL J. PARKS 1109 State St., Bowling Green 42101 (502) 781-5111 ....1974

Delegates to the A.M.A.

J. THOS. GIANNINI, Suite 3E, Suburban Medical Plaza, Louisville (502) 897-2555	Jan. 1973-Dec. 1974
CHAS. G. BRYANT, (Alt.) 3357 Medical Arts Bldg., Louisville (502) 452-1558	Jan. 1973-Dec. 1974
JOHN C. QUERTERMOUS, 205 S. 8th St., Murray (502) 753-5161	Jan. 1974-Dec. 1975
WILLIAM W. HALL, (Alt.) Mayfair Square, Owensboro (502) 684-6255 ...	Jan. 1974-Dec. 1975
DAVID B. STEVENS, 2101 Nicholasville Rd., Lexington (606) 278-3481	Jan. 1974-Dec. 1975
THOMAS L. HEAVERN, (Alt.) 2435 Alexandria, Highland Hgts. (606) 441-7600	Jan. 1974-Dec. 1975

Trustees

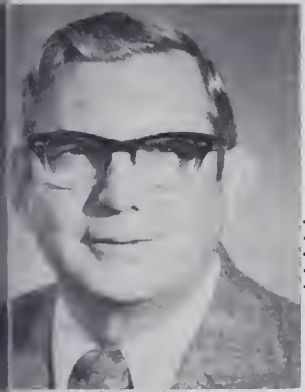
1st	W. EUGENE SLOAN, 2320 Broadway, Paducah 42001 (502) 443-4581 .....1974
2nd	CHARLES C. KISSINGER, Atkinson Park, Henderson 42420 (502) 826-6271 .....1976
3rd	RALPH L. CASH, 210 West Main St., Princeton 42445 (502) 365-2037 .....1974
4th	W. BRUCE HAMILTON, 4th & Buckman, Shepherdsville 40165 (502) 543-6362 ...1974
5th	EDWARD N. MAXWELL, St. Joseph Infirmary, Louisville 40217 (502) 636-7461 ..1975
6th	PAUL J. PARKS, 1109 State St., Bowling Green 42101 (502) 781-5111 .....1975
7th	JOHN P. STEWART, 220 Steele St., Frankfort 40601 (502) 227-4718 .....1976
8th	CARL J. BRUEGGEMANN, 325 W. 19th St., Covington 41014 (606) 291-4768 ..1975
9th	JAMES L. FERRELL, Bourbon Medical Ctr., Paris 40361 (606) 987-2200 .....1976
10th	DAVID A. HULL, 2368 Nicholasville Rd., Lexington 40503 (606) 277-5711 ....1976
11th	R. EUGENE BOWLING, 527 W. Main, Richmond 40475 (606) 623-3754 .....1975
12th	ROBERT N. McLEOD, JR., 500 Bourne Ave., Somerset 42501 (606) 678-8155 ....1974
13th	J. WESLEY JOHNSON, 2301 Lexington Ave., Ashland 41101 (606) 325-1151 ....1976
14th	BALLARD W. CASSADY, Pikeville Med. Bldg., Pikeville 41501 (606) 437-6698 ..1974
15th	HAROLD L. BUSHEY, 406 Knox St., Box 770, Barbourville 40906 (606) 546-3024 1975

BUYERS GUIDE

AUGUST BUYERS GUIDE FOR JOURNAL OF KMA 1974

Abbott Laboratories	458	A. P. Lee Agency	402
American Medical Association	455	Eli Lilly & Company	408
Berea Hospital	450	Loma Linda Foods	421
Burroughs Wellcome Company	424	Medical Protective Company	452
Dorsey Laboratories	407	Pharmaceutical Manufacturers Association	456-457
Federal Correctional Institution	450	Ramada Inn/Bluegrass Convention Center	451
Flint Laboratories	421	Roche Laboratories	400-401, 459-460
General Leasing Corporation	450	John E. Ryan, M.D.	420
William Gore Associates	449	Searle Laboratories	422-423
Hospital Corporation of America	450	Southern Optical Company	452
Kentucky Peer Review Organization, Inc.	453-454		

MESSAGE FROM THE PRESIDENT



I am glad to receive the opportunity to write the President's Page for *The Journal* this month as Chairman of the Board of Trustees.

KMA has in excess of 2,000 dues-paying members and has an organizational structure that allows for participation by all physicians who care to participate. Frequently, we of the Board hear complaints that this or that physician would like to have more input into the organization. Believe me, the Board and officers of KMA would like for all physicians to have input. Unfortunately, many physicians are disinterested until one facet of organized medicine affects them personally.

The Board of Trustees has met many long hours during the Associational year, often in double meetings for the Foundation business as well. The Executive Committee of the Board has met much more frequently due to this year being a state legislative year and fortunately, our efforts were somewhat successful.

We have had many small problems during the year and some large ones. Our most pressing problems now are efforts to update and improve the Medicaid program of Kentucky and the implementation of PSRO in Kentucky through an organization and in a manner which will be acceptable to most practicing physicians.

The House of Delegates will meet September 23 and September 25 and we would like to see every delegate present, well informed and willing to help solve some of the problems of KMA. Many counties are lax in designating and informing their delegates of their desires when they come to the convention. We would like to see more input from all physicians during formation of policy rather than criticism after the policy has been formed.

I am hoping to see 100 per cent delegate attendance at the meeting in September.

BALLARD W. CASSADY, M.D.
CHAIRMAN, KMA BOARD OF TRUSTEES

This is the third in a series of articles written at the request of KMA President, Fred C. Rainey, M.D.



MATERNAL MORTALITY



From the Files of the KMA Maternal Mortality Study Committee

—Edited by John W. Greene, Jr., M.D.

THE patient was a 33-year-old white married female Gravida 9, Para 8, whose last child was delivered three years prior to admission. The patient had reportedly been having normal menstrual periods prior to admission and her husband claimed that they were using birth control. The patient had apparently been feeling somewhat tired and was told that she had anemia by a family doctor. She had also had some irregular vaginal bleeding for several days prior to admission, but the bleeding was apparently minimal. On the morning of admission on the way to church she complained of a little shortness of breath and was found later in the day lying on her bed unable to speak or communicate. She was unconscious or comatose 30 minutes later and was seen in another hospital and sent to the Medical Center for evaluation.

A space-taking intracranial lesion was diagnosed and in view of her vaginal spotting a gynecologic consultation was requested. The gynecologist reviewed the history with the patient's family. On pelvic examination the uterus was found to be 8-10 weeks size, but no adnexal masses were felt. A chest x-ray showed several metastatic lesions in the lung fields and an electroencephalogram was reported as being compatible with a CVA. CBC was within normal limits as was a BUN. Blood sugar was reported as 235. Serum electrolytes were within normal limits as was the prothrombin time and the partial thromboplastin time. Arteriole blood gasses revealed PO_2 , 88; PCO_2 , 25; pH, 7.147; and O_2 saturation, 96.8%. A carotid angiogram was done which showed a large intracranial mass poorly defined. At this time a pregnancy test was reported as being strongly positive. Therefore, the presumptive diagnosis was that of metas-

tatic trophoblastic disease. A D and C of the uterus was carried out under local anesthesia. Frozen section on the curetings obtained was reported as choriocarcinoma with massive necrosis and acute inflammation. Some 10 or 11 hours after admission while the patient was receiving IV mannitol the blood pressure dropped and there were no palpable pulses. The EKG showed an irregular rate of about 30 to 40 beats per minute. The patient was taken to the Operating Room where an emergency craniotomy was performed to relieve intracranial pressure. A large mass and hematoma were encountered and evacuated; multiple biopsies were taken. The patient was transferred to the intensive care unit. The tissue removed at the time of craniotomy was found to be central nervous system tissue with no malignancy identified. With little hope for relief, IV Actinomycin D chemotherapy was begun, but the patient had a downhill course with deterioration of vital functions and pronounced dead at 7:40 a.m. on August 9, 1972. The final diagnosis being extensive metastatic trophoblastic disease with death due to intracranial hemorrhage.

Comments

This case was classified as a direct obstetrical death with no preventable factors. Choriocarcinoma is indeed a rare complication of pregnancy. Cases such as this are indeed unusual and indeed worth reporting. Rapid progression of this disease with little hope of adequate treatment is indeed disappointing. Great advances have been seen in the last 15 years concerning the treatment of this previously uniformly fatal disease. However, in this case, the rapid progression of this disease prevented early diagnosis and treatment.

COUGH



When a cough spoils your patient's day...

Triaminic® Expectorant

Each teaspoonful (5 ml.) contains:

Triaminic, 25 mg. (phenylpropanolamine hydrochloride, 12.5 mg.;
pheniramine maleate, 6.25 mg.; pyrilamine maleate, 6.25 mg.);
glyceryl guaiacolate, 100 mg.; alcohol, 5%.

Triaminic® Expectorant with Codeine®

Each teaspoonful (5 ml.) contains:

Codeine phosphate, 10 mg. (Warning: May be habit forming);
Triaminic, 25 mg. (phenylpropanolamine hydrochloride, 12.5 mg.;
pheniramine maleate, 6.25 mg.; pyrilamine maleate, 6.25 mg.;
glyceryl guaiacolate, 100 mg.; alcohol, 5%.

Triaminic Expectorant with Codeine is a Schedule V controlled substance.

The Adult Expectorants that are great for kids, too.

Dorsey Laboratories/Division of Sandoz-Wander, Inc./Lincoln, Nebraska 68501



Not too little, not too much...
but just right!

"Just right" amounts of Ilosone Liquid 250
can be dispensed easily from the pint bottle in *any* quantity
you specify to meet your patients' precise needs—
without regard to package size.

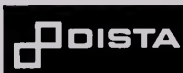
ready-mixed

ILOSONE[®] LIQUID 250

ERYTHROMYCIN ESTOLATE

(equivalent to 250 mg. erythromycin per 5-ml. teaspoonful)

Additional information available to the profession on request.



Dista Products Company
Division of Eli Lilly and Company
Indianapolis, Indiana 46206

400054

The JOURNAL of the Kentucky Medical Association

ISSUED MONTHLY UNDER THE DIRECTION OF THE BOARD OF TRUSTEES

VOLUME 72

AUGUST 1974

No. 8

Transient Pulmonary Infiltrates Following Acute Myocardial Infarction

JAMES A. SCHROER, M.D.* AND RAYMOND J. TIMMERMAN, M.D.*

Ft. Thomas, Kentucky

A review of 200 consecutive cases of proved myocardial infarction treated in St. Luke Hospital CCU revealed transient abnormal radiographic changes in 41 cases (20%). The most common abnormality was a small amount of fluid in the left costophrenic sinus.

OTHER abnormal findings included prominence of the pulmonary vessels, diffuse pulmonary congestion, and bilateral pulmonary edema. Nine cases had infiltrates which were interpreted as possible broncho-pneumonia. We are presenting three of these cases which had frequent follow-up films and which were treated for congestive failure only. Antibiotics were not administered in these three cases, further proving that the infiltrates were due to localized pulmonary edema.

Case I

P.K., 49-year-old, white male, was admitted on April 27, 1970, because of recurrent chest and epigastric pain. On the 29th, the enzymes were normal and ECG showed anterolateral ischemia. On May 1, he developed obvious signs of an acute myocardial infarction with ECG showing typical signs of anterior M.I.

The SGOT was 150, LDH was 475, and WBC was 11,500.

On April 28, 1970, a chest x-ray was normal. On May 1, there was an early infiltrate in the right lung field (Fig. 1). On May 4, the patient became moderately dyspneic and had a slight non-productive cough. X-ray on the same day showed a marked increase in the infiltrate suggesting bronchopneumonia (Fig. 2). He responded promptly after digoxin and mercurhydrin were administered. On May 8, the infiltrate was no longer present (Fig. 3).



FIG 1 Case I, showing infiltrate in the right lung field.

*From the Department of Medicine, St. Luke Hospital, Ft. Thomas



FIG 2 Case I, marked increase in infiltrate, suggesting bronchopneumonia.

Case II

I. Z., a 71-year old, white female, was admitted on May 31, 1972, because of anterior chest pain and dyspnea. The ECG showed signs of an acute anterior infarction and left ventricular hypertrophy. SGOT was 120, LDH was 300, and WBC was 16,000.

Chest x-ray on admission showed a large infiltrate in the left lower lobe suggesting pneumonia (Fig. 4). On June 2, the infiltrate had



FIG 3 Case I, infiltrate absent, following treatment for heart failure.

cleared. Some densities remained at both bases (Fig. 5). The patient was treated with digoxin, Lasix, and potassium. No antibiotics were prescribed. She made a complete recovery.

Case III

J. P., 62-year-old, white diabetic male, was admitted on January 4, 1970, because of severe dyspnea and tachycardia. ECG on admission showed severe anterolateral ischemia, and on January 9, deep Q-waves were present in V₁ and V₂. SGOT was 140, LDH was 260, and WBC was 8,900.



FIG 4 Case II, infiltrate left lower lobe suggesting pneumonia.

This case is presented last because of the interesting x-ray changes, which tend to prove that the lung infiltrate was definitely fluid.

Chest x-ray on admission showed a possible infiltrate in the right lower lobe. On January 7, x-ray showed frank pulmonary edema with hilar butterfly. On the 8th, the edema had cleared except for an area in the right lower lobe (Fig. 6). On January 12, considerable density remained along the right heart border (Fig. 7), and a right decubitus film showed fluid in the pleural space, extending into the minor fissure (Fig. 8). Lateral films are also of value in delineating the site of pulmonary edema.

On January 16, chest x-ray was essentially

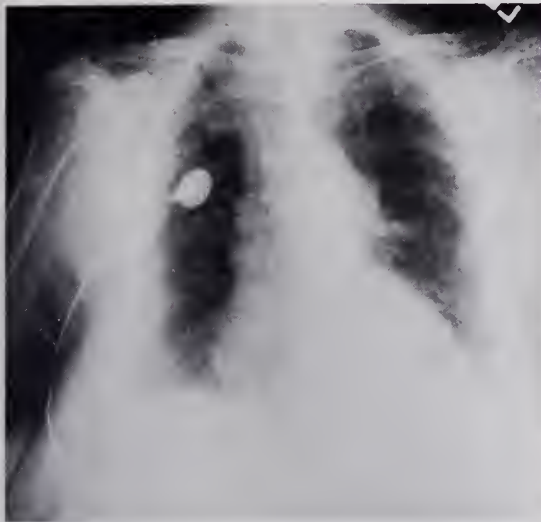


FIG 5 Case II, clearing of infiltrate following treatment for heart failure.

normal (Fig. 9). This patient was treated intensively for heart failure only and made an eventual recovery.

Discussion

Since fever and leucocytosis may accompany an acute myocardial infarction or pulmonary embolus or bronchopneumonia, a differential diagnosis must be made.

The following signs of heart failure have been repeatedly described:¹

1. Typical butterfly mottling extending from both hilar areas.
2. Hilar fullness with venous congestion.
3. Interstitial edema as exhibited by a ground glass appearance of the lung fields.
4. Kerley Lines.
5. Costophrenic or interlobar pleural effusion.



FIG 6 Case III, density right lower lobe.

Acute left-sided heart failure is due to alveolar edema and usually characterized radiographically as a butterfly wing pattern of consolidation.²

Recent interest in the more atypical forms of pulmonary edema is exemplified in the article by Hublitz and Shapiro.³ They describe regional, interstitial, reticular, and miliary-nodular patterns of edema in patients with chronic lung disease associated with congestive heart failure.

Gleason and Steiner⁴ have described patients with unilateral intra-alveolar edema of differing segmental distribution.



FIG 7 Case III, clearing of right lower lobe densities with remaining infiltrate along right heart borders.

Harle⁵ et al have described rapidly shifting patchy areas of pulmonary edema, noting that x-ray findings of acute pulmonary edema may precede the onset of conventional clinical manifestations.

Grainger⁶ has pointed out a possible gravity effect suggesting that edema may be basal, unilateral, or even apical.

Furthermore, Hull et al⁷ have recently described both patchy and diffuse intra-alveolar pulmonary edema, evident on x-rays, as a sign of left heart failure in acute myocardial infarction, emphasizing the fact that diffuse pulmonary edema may rapidly follow. As Harrison et al⁸ have warned, radiographic evidence of heart failure may precede the clinical onset.



FIG 8 Case III, right decubitus film showing fluid in pleural space and minor fissure.

McHugh⁹ and associates have described perihilar haze due to mildly increased pulmonary wedge pressure (18-22 mm Hg) and periacinar rosette formation with greater pressure (22-25 mm Hg), apparently due to fluid moving into the alveolar spaces. They thought that the development of Kerley B Lines were a less consistent indication of left ventricular failure. These lines may not appear unless the capillary wedge pressure is over 20 mm Hg.¹⁰

We wish to emphasize the fact that these patchy infiltrates may represent early pulmonary edema. Other signs of congestive heart failure may not be present.

Summary

Three cases of acute myocardial infarction are reported in which transient x-ray findings of a pulmonary infiltrate developed probably representing localized pulmonary alveolar edema. These infiltrates cleared promptly, usually within 24 hours, following treatment for heart failure. Since leucocytosis and fever commonly accompany an acute M.I., there can be

diagnostic confusion, especially with bronchopneumonia. Antibiotics may be unnecessarily prescribed. Diuretics are indicated since the infiltrates are probably due to left ventricular failure rather than infection or infarction.



FIG 9 Case III, chest x-ray essentially normal following treatment for heart failure.

References

1. Braunwald, E.: Heart failure in Harrison's Principles of Internal Medicine, 6th ed. New York, McGraw-Hill, p. 1137, 1970.
2. Weems, H.S., Gay, B.B. Jr.: Radiologic examination of the heart, in The Heart edited by Hurst, J.W. and Logue, B.B., 2nd ed. New York, McGraw-Hill, p. 327, 1970.
3. Hubiltz, U.F., Shapiro, J.H.: Atypical pulmonary patterns of congestive failure in chronic lung disease, *Radiology* 93:995-1005, 1969.
4. Gleason, D.C., Steiner, R.E.: The lateral roentgenogram in pulmonary edema, *Am. J. Roentgenol Radium Ther. Nucl. Med.* 98:279-290, 1966.
5. Harle, T.S., et al: Pulmonary edema without cardiomegaly, *Am. J. Roentgenol Radium Ther. Nucl. Med.* 103:555-560, 1968.
6. Grainger, R.G.: Interstitial pulmonary edema and its radiological diagnosis: A sign of pulmonary venous and capillary hypertension, *Br. J. Radiol.* 31:201-217, 1958.
7. Hull, R., et al: Clinical and radiological signs of left ventricular failure in acute myocardial infarction, *Acta Med Scan* 192:189-196, 1972.
8. Harrison, M.O., Conte, P.J., Heitzman, E.R.: Radiological detection of clinically occult cardiac failure following myocardial infarction, *Br. J. Radiol.* 44:265-272, 1971.
9. McHugh, T.J., Forrester, J.S., et al: Pulmonary vascular congestion in acute myocardial infarction: Hemodynamic and radiologic correlations. *Ann. Int. Med.* 76:29-33, 1972.
10. Heitzman, E.R., Zitter, F.M. Jr.: Acute interstitial pulmonary edema, *Am. J. Roentgenol. Radium Ther. Nucl. Med.* 98:291-299, 1966.

Respiratory Distress Syndrome Treated with Exchange Transfusion

WILLIAM F. SCHNITZKER, M.D.
Ashland, Kentucky

Six cases of Respiratory Distress Syndrome were treated by exchange transfusion with fresh adult blood. It is believed the beneficial results occur because of the decreased oxygen affinity of adult hemoglobin.

CONSERVATIVE accepted treatment of Respiratory Distress Syndrome (RDS) with monitored, moist oxygen in an isolet, and maintenance of and/or correction of fluid and electrolyte balance by intravenous glucose with appropriate concentration of sodium bicarbonate usually accomplishes satisfactory results when supplied early or even in anticipation to infants who are prone to difficulty. Unfortunately, progression to hyaline membrane and fatal outcome still occur, even with the latest means of respiratory assistance. Treatment of RDS with exchange transfusions has been reported, often with dramatic results.^{1,2}

The rationale of treatment is the decreased oxygen affinity of adult hemoglobin and the adult red blood cell. In 1930, it was shown by Anselmino and Hoffman³ that the affinity of fetal blood for oxygen was greater than maternal blood. Benesch and Benesch⁴ and Chanutin and Curnish⁵ in 1967 demonstrated that the oxygen affinity of hemoglobin could be reduced by its interaction with a number of organic phosphates. The most important are 2,3-diphosphoglycerate and adenosine triphosphate. 2,3-DPG average 4.5 μ moles per ml of adult red blood cells and adenosine triphosphate averages 1.0 μ mole per ml.

Bunn and Briehl⁶ have shown a different binding site for 2,3-DPG in adult and fetal hemoglobin. Fetal hemoglobin does not have the ability to bind 2,3-DPG to the same degree

that adult hemoglobin does and, therefore, cannot release oxygen to the tissues as well. Also, the red blood cell 2,3-DPG content is often drastically reduced in infants with RDS, presumably due to the accompanying acidosis.⁷

Decreased red cell 2,3-DPG and decreased P_{50} occur in septic shock, in severe acidosis, following massive transfusions of stored blood, and in neonatal respiratory distress syndrome. P_{50} is the oxygen tension at 50% oxygen saturation; approximately 27 mm of mercury.

The following cases are reports of clinical experience in infants who were not responding to more conservative treatment. Delivoria-Papadopoulos et al⁸ recently presented a preliminary report of beneficial results in a controlled study.

Exchange transfusions utilized fresh dextrose-citrated adult blood within four to six hours. Stored blood has increased oxygen affinity⁹ due to decreased concentration of red blood cell 2,3-DPG.¹⁰

Report of Cases

The first two cases involved twins. The mother was a 25-year-old, white female, who had two spontaneous abortions, each at about 12 weeks; and one year prior to the birth of the twins had an emergency section because of abruptio placenta. This 2460 gm male infant developed hyaline membrane, tension pneumothorax, and expired.

*Case 1—J. R.*₁ a 2370 gm male was delivered by elective Cesarean-section. He was dyspneic, retracting, and grunting. Intravenous glucose and bicarbonate was begun. Astrup determination showed a pH of 7.02, pCO_2 84, pO_2 65, CO_2 content of 22 meq/l, and oxygen saturation of 80%. The infant appeared to be moribund. In the interval between her first baby and this infant, Miller et al¹ published a report on treatment with exchange trans-

fusions. Exchange transfusion was carried out at this time in the nursery isolet. When the procedure was completed, the infant was much improved and was breathing quite normally. Intravenous fluids were continued until the following day, and the remainder of the hospital course was uneventful.

Case 2—J. R. a dizygotic 2280 gm male twin was delivered second by breech extraction and did not show quite as severe clinical symptomatology as the first. The pH was 7.21, $p\text{CO}_2$ 44, $p\text{O}_2$ 48, CO_2 content 23 meq/l, and oxygen saturation 79%. The patient was definitely improved when the exchange was completed, but he did continue to retract until the following morning. The twins are now three years old.

Case 3—D. T. was delivered at approximately 32 weeks gestation by elective Cesarean section because the amniotic fluid was found to be in zone four; and a one-in-five chance of losing the infant was predicted at full term. Amniocentesis was done at the University of Kentucky Medical Center during the 28th week of pregnancy. Intrauterine transfusion was not indicated. Repeat amniocentesis two weeks later showed the same results. The mother was a 39-year-old, white, gravida 6, para 5, who lost her previous baby at the age of 12 hours due to erythroblastosis.

This male infant weighed 1845 gm. He was flaccid, pale, with grunting, rapid respiration and marked retraction. Breath sounds were hardly audible, as was the very feeble cry. The cord blood showed a positive Coombs test, blood type O, Rh positive. The total Bilirubin was 6.4 mg% with 1.1 mg% direct; hemoglobin 14.5 gm and hematocrit 45%. The astrup determination showed a pH of 7.29, $p\text{CO}_2$ 50, $p\text{O}_2$ 53, CO_2 content of 24 milliequivalents per liter. Exchange transfusion was obviously indicated as we had expected because of erythroblastosis. I would have been extremely reticent to attempt the procedure on this baby, because of the severe RDS, without the experience of the previous two cases. The umbilical vein catheter was already in place with glucose and bicarbonate running and when the blood was available this patient was exchanged at three hours of life with extremely gratifying results. His color and breathing were much improved immediately. He was continued on intravenous fluids until

the following day. The bilirubin was followed serially and did rise to 20.6 total and 2.0 direct in 48 hours. A second exchange transfusion was done without incident because of this hyperbilirubinemia. The remainder of the hospital course was entirely uneventful. *D. T.* is now 28 months of age and a normal boy.

Case 4—L. D.'s mother was a 37-year-old white gravida 7, para 6, with an expected date of delivery five weeks later than her emergency section. She had vaginal bleeding with abdominal pain for over 24 hours, and constant uterine contractions on admission. Abruptio placenta was diagnosed and section performed. The male infant weighed 2445 gm. There was marked pallor, retraction, and grunting; no cry, and breath sounds were hardly audible. A grade two systolic murmur was heard over the apex. The patient was placed in the isolet and fluids and bicarbonate were begun by umbilical catheter. Astrup showed pH 7.1, $p\text{CO}_2$ 52, $p\text{O}_2$ 95, CO_2 content 16.5 meq/l, oxygen saturation 93%. Repeat astrup in six hours showed pH 7.31, $p\text{CO}_2$ 47, $p\text{O}_2$ 38, CO_2 content 24, and oxygen concentration 68%. In spite of the improved acidosis,



FIG 1 X-ray of Case 5 showing hyaline membrane and congenital atelectasis.

the patient was deteriorating and exchange transfusion was carried out at 10 hours of life. The procedure was well tolerated, but the patient was not much improved. He continued to grunt and retract until the following day, however, his color remained good. Respiratory chemistries at that time were pH 7.39, $p\text{CO}_2$ 41, $p\text{O}_2$ 40, CO_2 content 25, oxygen saturation 75%. The patient was followed closely clinically and by laboratory studies. Fluids and supportive measures were carefully regulated. It was almost three days before he was breathing normally.

Case 5—*M. K.* was born to a 25-year-old white gravida 4, para 1, by repeat Cesarean section. This 2700 gm female infant showed the classical signs of RDS with distant breath sounds. She also had a pigeon chest deformity. Initially it appeared that conservative measures would suffice, but the following morning she was not clinically improved and a chest x-ray (Fig 1) showed the ground glass appearance of hyaline membrane and atelectasis in the lower left lung field with the heart and mediastinal structure shifted to the left. The astrup determination before the exchange was pH 7.24, $p\text{CO}_2$ 51, $p\text{O}_2$ 45, CO_2 content 22, and oxygen saturation of 73%. The exchange transfusion was accomplished without incident, but without appreciable change in the infant's condition. Conservative measures were continued, and the following day breath sounds were improved, but moderate retraction continued. The second day her condition stabilized and the remainder of the hospital stay was uneventful. She is now 18 months of age and entirely normal.

Case 6—A 2885 gm male infant with RDS was seen in consultation at 30 hours of age because of lack of response to conservative measures. Depressed at birth; his one minute Apgar was 3 and at five minutes, 7. Although there were periods of some temporary improvement, he was dyspneic, grunting and cyanotic most of the time, and lay in opisthotonos to increase his airway. He was pale, flaccid, and breath sounds were distant. Chest x-ray showed poor lung expansion; pH 7.305, $p\text{CO}_2$ 40, $p\text{O}_2$ 25 and O_2 saturation was 41%.

Intravenous bicarbonate and glucose were begun with no improvement. Exchange transfusion with 480 cc of fresh adult blood was performed at 34 hours. Color, breathing, and

air exchange were improved by 37 hours; however, moderate to mild retractions continued for another 36 hours. I. V. fluids were maintained during this period. The bililite was used for 48 hours when the bilirubin rose to 14.2 total and 0.2 direct the day following exchange.

This infant had developed normally when last seen at six months of age.

Comments

In communities with good obstetrical and pediatric care early conservative measures will usually suffice in most cases of RDS. Exchange transfusions should be considered in the infant that shows little or no response or begins to deteriorate. Clinical indications are continuation or progression of retraction, grunting, palor, cyanosis, and inaudible or distant breath sounds. Serial astrup determinations may be helpful.

In cases 1-5, the infants were delivered by Cesarean section; four elective and one emergency. Four were immaturely developed.

Cases 1 and 3, who appeared terminal and least likely to tolerate the procedure, showed dramatic response. Case 2 was definitely improved. Case 4 and 5 showed little immediate clinical improvement, however, the respiratory chemistries improved, and probably further deterioration was arrested. It appears that in indicated cases, the earlier the decision is made and the procedure carried out, the better the response. It is probably safer to proceed with the exchange transfusions in erythroblastosis with RDS than to delay for stabilization of the RDS that may or may not occur.

References

1. Miller, L.D., Diaco, J.F. et al.: Transfusions suggested for neonatal disorders. *JAMA* 211:1459, 1970.
2. Fields, D.L., *J. Indiana State Medical Assoc.* 65: 839-40.
3. Anselmino, K.T., and Hoffman, F.: Die Ursachen des Icterus Neonatorum, *Arch. Gynak.* 143:477, 1930.
4. Benesch, R., Benesch, R.E., and Enoki, Y.: The interaction of hemoglobin and its subunits with 2,3-diphosphoglycerate, *Proc. Nat. Acad. Sci. U.S.A.* 61: 1102, 1968.
5. Chanutin, A., and Curnish, R.R.: Effect of organic and inorganic phosphates on the oxygen equilibrium of human erythrocytes, *Arch. Biochem. Biophys.* 212:96, 1967.
6. Bunn, H.F., and Briehl, R.W.: The interaction of 2,3-diphosphoglycerate, *Proc. Nat. Acad. Sci. U.S.A.* 61: 1102, 1968.
7. Oski, F.A., Delivoria-Papadopoulos, M.: The red cell 2,3-diphosphoglycerate and oxygen release. *J. Ped.* 77:941, 1970.

(Continued on page 448)



GRAND ROUNDS



The University of Kentucky College of Medicine

This Journal feature will be presented alternately by the University of Louisville and the University of Kentucky Departments of Medicine and Departments of Surgery. We hope to have these features revolve around subjects of immediate practical interest to the practicing physician; and, for those of us not able to attend grand rounds in the teaching centers as often as we might, we hope this will represent a bit of a refresher course.

A Case of Rheumatoid Arthritis with Crico-Arytenoiditis†

Patient W. H.: Hospital #24-94-88-8

Admitted: September 27, 1973

Discharged: October 3, 1973

Problem # 1: Rheumatoid Arthritis

1a: Rheumatoid Crico-Arytenoiditis

Subjective: This is the first University of Kentucky admission for this 70-year-old white man who was transferred from another hospital after a two-week admission for symptoms of shortness of breath with cough. Upon presentation here his chief complaints were shortness of breath and intermittent hoarseness. He has a 40-pack a year smoking history.

Objective: The admission physical examination revealed an elderly white man in moderate respiratory distress with a slow, prolonged inspiratory and expiratory phase, and hoarseness. Blood pressure and pulse were normal, respiratory rate was 28/min.

Skin and Joints: multiple, scattered, rheumatoid nodules, ulnar deviation and lateral subluxation of hands and toes; knee joints, M-P and PIP joints hypertrophied with increased range of motion.

HEENT: Direct laryngoscopy revealed severe laryngeal edema without erythema or masses visualized. The airway at the level of the true cords was estimated to be approximately 3 mm.

Chest: Increased AP diameter with decreased breath sounds diffusely; no rales, rhonchi, or wheezes.

The rest of the physical examination was unremarkable.

Laboratory Data: Chest x-ray within normal limits, EKG: Left anterior hemiblock, blood gases (room air): pH-7.47, PO₂-77, PCO₂-26,

†From the Department of Medicine, University of Kentucky, Lexington.

glucose, BUN, electrolytes all were within normal limits. Sedimentation rate was 48; hematocrit -37, WBC-8600. Serum protein electrophoresis: 6.8 gms of total protein, 2.6 gms of albumin. Liver and renal functions were within normal limits. RA latex titer: 1:160. Pulmonary functions studies: mild to moderate obstructive airway disease.

Hospital Course: The patient was begun on Solu-cortef 100 mg IV every six hours, and after two days was switched to Prednisone 10 mg four times daily. The hoarseness and signs of upper airway obstruction disappeared after 24 hours of steroid therapy. Repeat direct laryngoscopy on the third hospital day showed a marked decrease in the laryngeal edema with the airway estimated at 6-7 mm, and the third tracheal ring being easily visualized.

Assessment: Rheumatoid arthritis with crico-arytenoid involvement causing upper airway obstruction.

Plan: The patient was discharged on Prednisone 10 mg four times daily with the dose to be decreased as tolerated, and under follow-up care of his physician.

Discussion

The problem oriented approach to patients, and not just their records, is well exemplified of the course of this man. In the first hospital, where he spent two weeks, the true level of understanding of his problem was that he was short of breath. Without going much further with the problem, his physicians defined the problem as probably asthma and started him on a moderate dose of Prednisone, about 20

ing a day. On this regimen he improved a bit but remained relatively stationary until he was transferred to our hospital. The U.K. doctors carried the problem one step forward quite immediately by recognizing that his shortness of breath was not in his lungs but was obstruction of the upper airway by some process. Both groups of doctors recognized that he had rheumatoid arthritis and were aware of this additional problem. Finally, both problems were resolved together to a common problem of rheumatoid arthritis involving the crico-arytenoid joints of the larynx with acute laryngeal stridor. With final resolution of the problem, appropriate therapy with high doses of corticosteroids led to his gradual improvement and discharge from the hospital.

The crico-arytenoid articulation is a true synovial joint, and a very important one functionally since the sliding and gliding of the arytenoid cartilage over the cricoid cartilage is the primary mechanism by which the vocal cords move back and forth for speech. Autopsy studies of patients with rheumatoid arthritis indicate that articulation is involved in perhaps half of the patients who die with rheumatoid arthritis but the clinical manifestations are rarely as dramatic as they were in this patient.

Usually crico-arytenoid arthritis manifests itself by simply pain over the articulation, which the patient usually appreciates as a peculiar deep-seated sore throat just below the jaw on one or both sides. If one examines the patient carefully externally by pressing over the laryngeal area under the jaws one finds tenderness, and examination of the posterior pharynx which the patient associates with the "sore throat" is normal. If indirect laryngoscopy is done one can often see some swelling and redness in the area of the crico-arytenoid articulation and can resolve the chronic sore throat as crico-arytenoid arthritis.

In addition to the chronic sore throat syndrome crico-arytenoid involvement may present primarily with chronic or acute hoarseness. This symptom simply means that the articulation is not functioning well and the vocal cords do not respond properly during speech. Here again, indirect laryngoscopy will usually reveal the cause, or one can simply assume that it is crico-arytenoid arthritis and tell the patient that in most instances hoarseness will

improve with time. In this particular patient, because of the acuteness of his involvement, he was almost totally voiceless because attempts at speech led to intensification of his shortness of breath as he tried to use the articulations and he would speak with only a very mild whisper and even then spoke as little as possible.

Most commonly, then, crico-arytenoid arthritis is simply a nuisance that occurs during the course of rheumatoid arthritis and a nuisance that both patients and doctors should be aware of. Chronic sore throat and chronic hoarseness usually resolve spontaneously in several weeks or months and nothing is more needed than simply an appreciation of the fact that these joints are commonly involved in rheumatoid arthritis and are likely to recover spontaneously. The one life-threatening complication of involvement of these joints was exemplified in this patient: namely, sufficient acute involvement so that the vocal cords were essentially in opposition one to the other and the airway was narrowed to a slit between the vocal cords and was almost entirely closed. Occasionally this can be a chronic problem and one that requires surgical intervention to repair the crico-arytenoid articulation. Rarely, as in this patient, acute involvement leads to acute airway obstruction and an emergency tracheostomy may be in order. Indeed for almost a week during his stay in our Intensive Care Unit the tracheostomy tray was at the bedside in the event that his airway suddenly closed off.

In most patients with crico-arytenoid arthritis with stridor as the major complaint, corticosteroids systemically can be life-saving and can avoid acute surgical intervention with tracheostomy. As was the case in this patient his stridor slowly resolved and with it his ability to speak more distinctly and without fear of increasing his shortness of breath. As he improved it was interesting to watch his breathing pattern. In order to avoid sudden movements of the nearly-opposed vocal cords, he initially breathed in and out with very slow and deliberate breaths to avoid excessive motion of the cords. As he improved this slow flat inspiratory and expiratory pattern improved and this change could be easily demonstrated by our simple tracings of his vital capacity. The measurements were interesting but one could correlate the same phenomena at

the bedside as he began to breathe in a more normal fashion as the acute inflammation subsided.

Since crico-arytenoid arthritis is a relatively common involvement of the rheumatoid patients, it is well to bear this in mind when contemplating elective surgery in the rheumatoid patient. In such patients, the anesthesiologist should be consulted in advance and he should have available to him cervical spine x-rays to warn him that he may get into trouble during intubation and anesthesia because of spine disease. In addition, the anesthesiologist should do indirect laryngoscopy before putting a patient to sleep and trying to insert an endotracheal tube in the operating theater. An occasional cause of postoperative difficulty in the rheumatoid patient is activation of crico-arytenoid inflammation as a result of a period of prolonged endotracheal intubation. For the anesthesiologist these two simple precautions—preoperative x-rays of the neck and preoperative examination of the vocal cords—can prevent excessive morbidity or mortality in pa-

tients with rheumatoid arthritis who undergo surgery for any cause.

This patient represents the extreme range of symptoms that one encounters with crico-arytenoid arthritis. The problem is one of recognition and that problem involves remembering that many joints are often involved in rheumatoid arthritis and that each of us does have in our larynx a small diarthrodial joint which can be the site of rheumatoid synovitis and may cause disturbing or even life-threatening symptomatology.

Bibliography

1. Bienenstock, H., Ehrlich, G.E., and Freyberg, R.H.: Rheumatoid arthritis of the crico-arytenoid joint: A clinicopathologic study. *Arthr. and Rheum.*, 1963, 6, 48-63.
2. Lofgren, R.H., and Montgomery, W.W.: Incidence of laryngeal involvement in rheumatoid arthritis. *New Engl. J. Med.*, 1962, 267, 193-195.
3. Wolman, L., Darke, C.S., and Young, A.: The larynx in rheumatoid arthritis. *J. Laryng.*, 1965, 79, 403-434.
4. Vassallo, C.L.: Rheumatoid arthritis of the crico-arytenoid joints. Cause of upper airway obstruction. *Arch. Intern. Med.*, 1966, 117, 273-275.

J. W. HOLLINGSWORTH, M.D.

Manuscript Memos

Manuscripts should be submitted in duplicate to The Journal of KMA, an original copy and one carbon, and typed with double spacing. Maximum length of an article should not exceed 4500 words; the Board of Consultants on Scientific Articles prefers that they be briefer than this when possible.

In submitting a manuscript, the author is requested to include a concise summary, not to exceed 35 words, to be used as a sub-title when the article is published in The Journal. The purpose of the summary is to create additional interest and encourage greater readership.

Footnotes and bibliographies should conform to the style of the Index Medicus. This requires in the order given name of author, title of article, name of periodical, with volume, page, month—day of month if weekly—and year. The Journal of the KMA does not assume responsibility for the accuracy of references used with scientific articles.

All scientific material appearing in The Journal is reviewed by the Board of Consultants on Scientific Articles. The editors may use up to six illustrations with the essayist bearing the cost of all over three one-column halftones.

Arrangements for reprints of an article should be made directly with the publisher of The Journal Gibbs-Inman Printing Company, 817 W. Market St. Louisville, Ky.

The bylaws of the Kentucky Medical Association provide that all scientific discussions and papers read before the KMA Annual Meeting shall be referred to the KMA Journal for consideration for publication. The bylaws further state that the editor or the associate editor may accept or reject these papers as it appears advisable and return them to the author if not considered suitable for publication.

Please mail your scientific articles to The Journal of the Kentucky Medical Association, 3532 Ephraim McDowell Drive, Louisville, Kentucky 40205.



EDITORIALS



"KMA Week" Is Near

It's that time again!

The Annual Meeting of the Kentucky Medical Association will be held September 23-26, at the Bluegrass Convention Center on Hurstbourne Lane in Louisville.

It's time, then, for you to make your plans to attend—arrange your office and hospital schedules, alert your wife (she probably already has it on her schedule), make your motel reservations, and look forward to a productive and stimulating experience.

The scientific program, as usual, promises to be outstanding. Fourteen guest speakers from leading medical centers all over the country will join some of our own members in presenting seminars on such topics as "The Sexes," "Hypertension," "Fetal and Neonatal Health," and "Food Facts and Fads," as well as in the 18 specialty sessions on Tuesday and Thursday afternoons.

The complete scientific program is published elsewhere in this issue of *The Journal*.

The President's Luncheon on Wednesday will feature an address by Julian Carroll, Lieutenant Governor of the Commonwealth; the installation of Hoyt Gardner as Association President for 1974-75; and the presentation of KMA's highest awards.

The annual KEMPAC Dinner on Monday evening is always a popular feature of "KMA Week" and justly so! The political arm of organized medicine has earned the respect of the legislative and executive branches of government and deserves our support.

Lest we forget the "business" side of our Association, the House of Delegates will hold two sessions—on Monday morning and on Wednesday evening—to discuss matters of interest to the members, establish policy, and to elect officers. Your delegates should be encouraged to fulfill their responsibility by attending both sessions, for they are your voice in the decision-making activities of the House. Reference committee meetings are held on Monday afternoon, affording any member in good standing the opportunity to express his views on the resolutions and reports under consideration. This is democracy in action!

Need you be reminded that all of these activities, scientific and business, serve only one purpose—the best interests of the physician, the profession and the citizens of Kentucky.

You will be a part of it, won't you?

The dates: September 23-26, 1974.

HBA

Take This Issue Home To Your Wife

Your are urged to take this issue home for your wife to read. Many activities planned during the Annual Meeting will be of interest to her. The program for the Annual Convention of the Woman's Auxiliary to KMA is also included in this issue.



POSTGRADUATE OPPORTUNITIES



SEND IN MEETING INFORMATION

Many medical organizations are setting dates for their fall and winter meetings. At the same time they are choosing the topics to be discussed, arranging for speakers and planning programs.

The Continuing Medical Education office of the Kentucky Medical Association would like to urge these societies and organizations to notify this office of these dates and topics so they can be added to the "Continuing Education Opportunities" calendar in *The Journal*. In this way conflicts in dates can be avoided and a wider audience can be informed of these upcoming meetings.

Please send such information, when available, to the KMA Continuing Medical Education Office, 3532 Ephraim McDowell Drive, Louisville, Ky. 40205.

IN KENTUCKY

SEPTEMBER

- 15-21 Fifth Family Medicine Review*, University of Kentucky Medical Center, Registration fee: \$195; Lexington
- 21-22 Alumni Weekend,** University of Louisville School of Medicine, Health Sciences Center. Scientific sessions presented by the Departments of Family Practice, Medicine, OB-GYN, Psychiatry and Surgery, Louisville
- 24-26 KMA Annual Meeting, Ramada Inn/Bluegrass Convention Center, Louisville

OCTOBER

- 6-12 Fifth Family Medicine Review*, University of Kentucky Medical Center, Registration fee: \$195; Lexington
- 7-Nov.2 Coronary Care Nurses Training Program, King's Daughters' Hospital, Ashland. Contact: Director of Nurses, King's Daughters' Hospital, 2101 Lexington Avenue, Ashland 41101

*For further information contact Ronald D. Hamilton, M.D., Director, Continuing Education, College of Medicine, University of Kentucky, Lexington 40506

**For further information contact Gerald D. Swim, Director, Office of Continuing Education, University of Louisville School of Medicine, Health Sciences Center, Louisville, Kentucky 40201

- 11-12 Kentucky / Tennessee Regional Meeting, American College of Physicians, Ramada Inn, Lexington. Contact: Franklin B. Moosnick, M.D., 184 N. Mill Street, Lexington 40507

- 25-26 Second Annual Symposium on "Acute Respiratory Insufficiency,"** Department of Anesthesiology, University of Louisville School of Medicine, Louisville

NOVEMBER

- 7-8 Eighth Annual Newborn Symposium, Health Sciences Center Auditorium, University of Louisville School of Medicine, Louisville. For information write Billy Andrews, M.D., 200 E. Chestnut St., Louisville 40202
- 7-9 Tenth Annual Bronson Course in "Diagnostic Ophthalmic Ultrasound," Fee: \$125, University of Louisville School of Medicine, Health Sciences Center, Louisville

IN SURROUNDING STATES

SEPTEMBER

- 20-21 "Pediatric Gastroenterology and Nutrition," Vanderbilt University Hospital, Nashville. Contact: Harry Green, M.D., Vanderbilt University School of Medicine, Nashville 37232
- 30-Oct. 1 Annual Meeting, Tennessee Valley Medical Assembly, The Read House, Chattanooga

PARTNER WANTED

To join Medicine, Pediatrics and OB Practice established for 23 years in South Louisville. Contact John E. Ryan, M.D. (502) 366-0515 (24 hours).

Synthroid®

(sodium levothyroxine)

Supplied: **Tablets:** 0.025 mg., 0.05 mg., 0.1 mg., 0.15 mg., 0.2 mg., 0.3 mg., 0.5 mg., scored and color-coded in bottles of 100, 500, and 1000.

Injection: 500 mcg. lyophilized active ingredient and 10 mg. of Mannitol, U.S.P., in 10 ml. single-dose vial, with 5 ml. vial of Sodium Chloride Injection, U.S.P., as a diluent.

Synthroid-T₄



FLINT LABORATORIES
DIVISION OF TRAVENOL LABORATORIES, INC.
Deerfield, Illinois 60015

Who suffers more

when mother's child suffers from colic, diarrhea or similar malady?



**Soyolac and new
I-Soyolac can be an
effective answer.**

I-Soyolac from isolated
protein without corn.

I-Soyolac and regular Soyolac is palatable, readily digestible and assimilated. It simulates human milk in appearance, taste and texture. It is complete with vitamins and minerals. It is suitable for infants and children who are sensitive to or cannot tolerate cow's milk.

For nearly a quarter of a century, Soyolac has proven its value—in promoting growth and development—as proven by extensive clinical data.

Available in four forms: • I-Soyolac Concentrated • Soyolac Concentrated • Soyolac Ready-Serve • Soyolac Powder.



send to: Loma Linda Foods
Medical Products Division
Riverside, Calif. 92505

Please send me free sample and literature.

Name _____

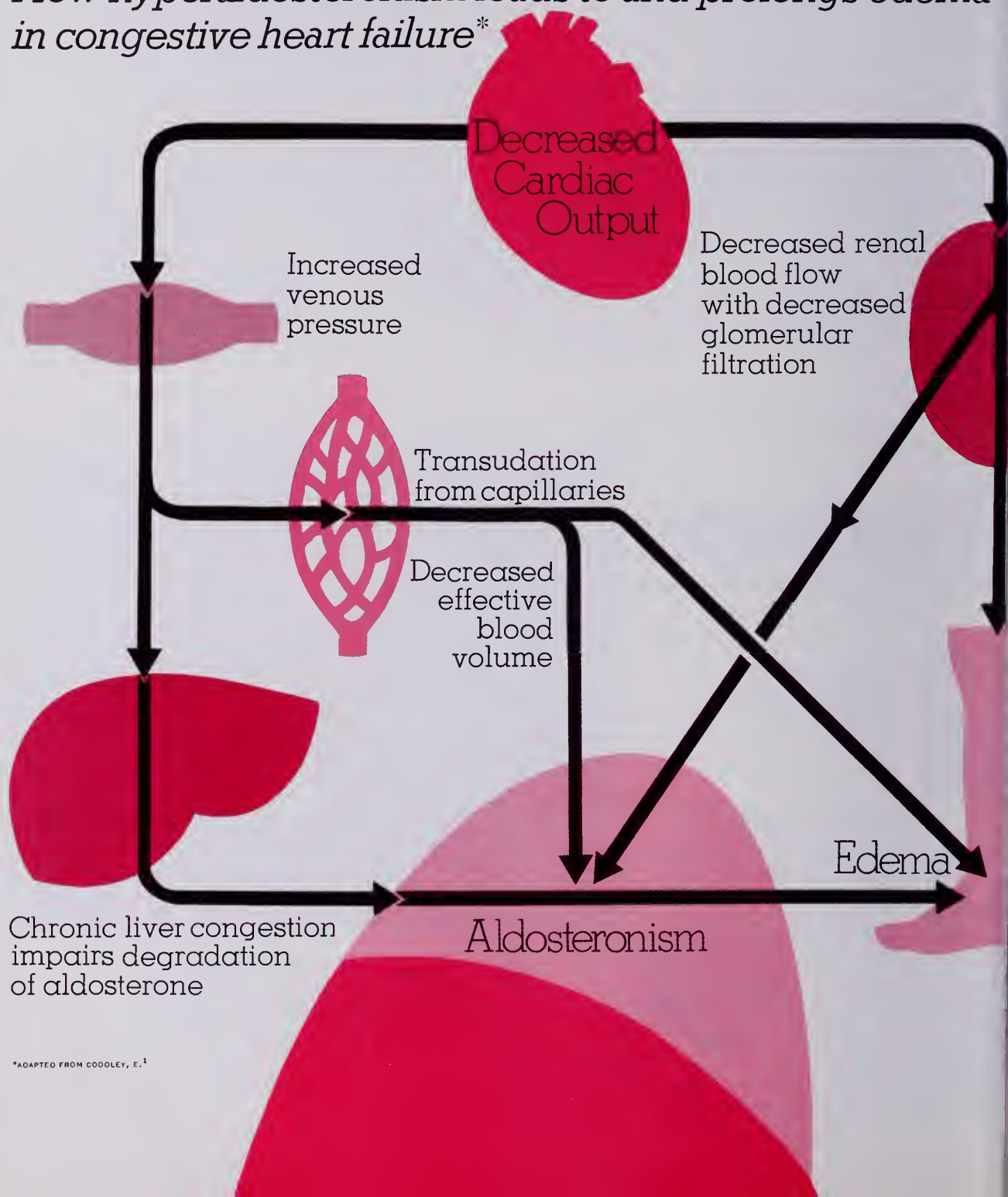
Address _____

City _____ State _____ Zip _____

Or a simple note on your prescription form will do.

In congestive heart failure... **secondary aldosteronism:**

*How hyperaldosteronism leads to and prolongs edema in congestive heart failure**



a primary factor

*"switch off" the aldosterone factor in
congestive heart failure*

Aldactone
of
spironolactone 25-mg. tablets
*the only specific
aldosterone antagonist...
basic in all diuretic therapy*

See ways to use Aldactone in
congestive heart failure

is the only diuretic
often sufficient alone.
produces gradual, sustained diuresis by
blocking aldosterone action in the distal
renal tubule.
prevents potassium loss.

is the basic daily diuretic with an "add-on"
nightly-day-diuretic ("A.D.D." schedule)
can be administered daily as basic
therapy with the additional agent
(furosemide or ethacrynic acid) given
on the second or third day.
Aldactone plus "A.D.D." schedule
minimizes potassium deficiency and
prevents effect of "add-on" diuretic.²
prevents acute volume depletion and
aldosterone rebound.²

is a daily diuretic in combination with
a daily dose of a thiazide
permits daily additive diuretic effect
while maintaining potassium balance.

Indications—Essential hypertension; edema or ascites of congestive heart failure, cirrhosis of the liver and the nephrotic syndrome; idiopathic edema. Some patients with malignant effusions may benefit from Aldactone (spironolactone), particularly when given with a thiazide diuretic.

Contraindications—Acute renal insufficiency, rapidly progressing impairment of renal function, anuria and hyperkalemia.

Warnings—Potassium supplementation may cause hyperkalemia and is not indicated unless a glucocorticoid is also given. Discontinue potassium supplementation if hyperkalemia develops. **Usage of any drug in women of childbearing age requires that the potential benefits of the drug be weighed against its possible hazards to the mother and fetus.**

Precautions—Patients should be checked carefully since electrolyte imbalance may occur. Although usually insignificant, hyperkalemia may be serious when renal impairment exists; deaths have occurred. Hyponatremia, manifested by dryness of the mouth, thirst, lethargy and drowsiness, together with a low serum sodium may be caused or aggravated, especially when Aldactone is combined with other diuretics. Elevation of BUN may occur, especially when pretreatment hyperazotemia exists. Mild acidosis may occur. Reduce the dosage of other antihypertensive drugs, particularly the ganglionic blocking agents, by at least 50 percent when adding Aldactone since it may potentiate their action.

Adverse Reactions—Drowsiness, lethargy, headache, diarrhea and other gastrointestinal symptoms, maculopapular or erythematous cutaneous eruptions, urticaria, mental confusion, drug fever, ataxia, gynecomastia, inability to achieve or maintain erection, mild androgenic effects, including hirsutism, irregular menses and deepening voice. Adverse reactions are infrequent and usually reversible.

Dosage and Administration—For essential hypertension in adults the daily dosage is 50 to 100 mg. in divided doses. Aldactone may be combined with a thiazide diuretic if necessary. Continue treatment for two weeks or longer since an adequate response may not occur sooner. Adjust subsequent dosage according to response of patient.

For edema, ascites or effusions in adults initial daily dosage is 100 mg. in divided doses. Continue medication for at least five days to determine diuretic response; add a thiazide or organic mercurial if adequate diuretic response has not occurred. Aldactone dosage should not be changed when other therapy is added. A daily dosage of Aldactone considerably greater than 75 mg. may be given if necessary.

A glucocorticoid, such as 15 to 20 mg. of prednisone daily, may be desirable for patients with extremely resistant edema which does not respond adequately to Aldactone and a conventional diuretic. Observe the usual precautions applicable to glucocorticoid therapy; supplemental potassium will usually be necessary. Such patients frequently have an associated hyponatremia—restriction of fluid intake to 1 liter per day or administration of mannitol or urea may be necessary (these measures are contraindicated in patients with uremia or severely impaired renal function). Mannitol is contraindicated in patients with congestive heart failure, and urea is contraindicated with a history or signs of hepatic coma unless the patient is receiving antibiotics orally to "sterilize" the gastrointestinal tract.

Glucocorticoids should probably be given first to patients with nephrosis since Aldactone, although useful for diuresis, will not directly effect the basic pathologic process.

For children the daily dosage should provide 1.5 mg. of Aldactone per pound of body weight.

References: 1. Coadley, E.: Consultant 12 106-107, 109, 111, 113, 115 (July) 1972. 2. Thorn, G. W., and Lauler, D. P.: Am. J. Med. 53 673-684 (Nov.) 1972

SEARLE

Searle & Co.

San Juan, Puerto Rico 00936

Address medical inquiries to:

G. D. Searle & Co.

Medical Department

Box 5110, Chicago, Illinois 60680

Healing nicely but it still **HURTS**

HERE

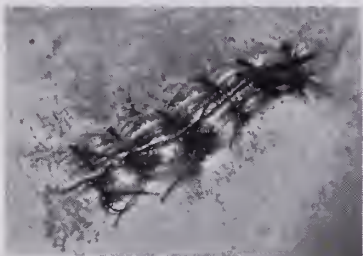
Burns




When parenteral analgesia is no longer required, Empirin Compound with Codeine usually provides the relief needed.

HERE

Sutures



Empirin Compound with Codeine is effective for visceral as well as soft tissue pain—provides an antitussive bonus in addition to its prompt, predictable analgesia.

 **prescribing convenience:** up to 5 refills in 6 months, at your discretion (unless restricted by state law); by telephone order in many states.

Empirin Compound with Codeine **No. 3**, codeine phosphate* 32.4 mg. (gr. 1/2); **No. 4**, codeine phosphate* 64.8 mg. (gr. 1). *Warning—may be habit-forming. Each tablet also contains: aspirin gr. 3 1/2, phenacetin gr. 2 1/2, caffeine gr. 1/2.



Wellcome

Burroughs Wellcome Co.
Research Triangle Park
North Carolina 27709



HERE

Nasal fracture

EMPIRIN COMPOUND c CODEIN

#3, codeine phosphate* (32.4 mg.)
#4, codeine phosphate* (64.8 mg.)

1974

Annual Meeting Section

TABLE OF CONTENTS

KMA Officers for 1973-74	426
District Trustees and Trustee Map	430
Delegates to the KMA House	431
Reference Committee Activity	433
Official Call to Meeting	434
Election of Officers	434
Annual Meeting Special Features	435
Nominating Committee	436
KEMPAC Seminar	436
1974 Annual Meeting Program Summary	437
Complete Scientific Program	438
Alumni Reunions	444
Technical Exhibits	445
Annual Convention, Woman's Auxiliary to KMA	446



FRED C. RAINEY, M.D.
PRESIDENT



Hoyt D. Gardner, M.D.
President-Elect



Gabe A. Payne, Jr., M.D.
Vice-President

PRESIDENT-ELECT

Hoyt D. Gardner, M.D.

Louisville

The installation of Hoyt D. Gardner, M.D., as President of the Kentucky Medical Association will take place at the President's Luncheon held Wednesday, September 25.

Doctor Gardner, a general surgeon, is a 1950 graduate of the University of Louisville School of Medicine. He is a Diplomate of the American Board of Surgery and is a Fellow of the American College of Surgeons.

Most recently Doctor Gardner was elected to the AMA Board of Trustees for a three-year term and, in addition, was named to its Executive Committee. In another recent election, he was named Chairman

of the University of Louisville Board of Trustees.

Extremely active in Association affairs on the county, state, and national level, Doctor Gardner is a past President of the Jefferson County Medical Society. He has served on numerous committees of KMA and Jefferson County, including a 12-year tenure as Chairman for National Affairs of the KMA Committee on Legislative Activities. A member of the AMA Council on Legislation and a past Chairman of the AMPAC and KEMPAC Board of Directors, Doctor Gardner has given much time to organized medical groups throughout the United States continually helping to increase interest in the vital field of political activity.

VICE-PRESIDENT

Gabe A. Payne, Jr., M.D., Hopkinsville

Doctor Payne, a Hopkinsville pediatrician, is also a Clinical Instructor in Pediatrics at Vanderbilt University School of Medicine where he received his M.D. degree in 1943. A Diplomate of the American Board of Pediatrics and a Fellow of the American Academy of Pediatrics, Doctor Payne has been very active in the affairs of organized medicine.

He is a past President of the Pennyrile Medical Society, served for four years on the Kentucky State Board of Health, and is a past member of the Ad-

visory Council for Health Facilities for Kentucky.

His dedicated service to the Association includes two terms on the KMA Board of Trustees from 1962-68, during which time he was chosen Vice-Chairman for a year. Former committee membership includes the Committee on Plans and Development, the Council on Legislative Activities, and the Advisory Committee to the Woman's Auxiliary. Doctor Payne is the Immediate Past Chairman of the KMA Judicial Council.

SECRETARY

S. Randolph Scheen, M.D., Louisville

Now serving his seventh year as KMA Secretary, Doctor Scheen is a Louisville dermatologist and Assistant Clinical Professor at the University of Louisville and University of Kentucky medical schools. He received his M.D. degree from the University of Louisville in 1953 and his M.Sc. degree in dermatology from the University of Minnesota in 1960. Doctor Scheen is a member of the KMA Judicial Council and has been most active in

service to KMA. He is a member of the American Academy of Dermatology and the Alumni Association of the Mayo Foundation.



TREASURER

Keith P. Smith, M.D., Corbin

Doctor Smith, a general surgeon, has been Treasurer of the Association since 1963. He is a former KMA

Vice-President, Chairman of the Board of Trustees, and a Trustee from the 15th District from 1957-63. A 1936 graduate of the University of Louisville School of Medicine, Doctor Smith is an active member of the Kentucky Academy of Family Physicians, having served as a former Academy President and Vice-President.



He belongs to the American Academy of Family Physicians, the Southern Surgical Association, and the Kentucky Obstetrical and Gynecologic Society.

Officers of the House of Delegates

SPEAKER

Richard F. Greathouse, M.D., Louisville

Doctor Greathouse has served as Speaker of the KMA House of Delegates for eight years. A pediatrician, he is a former KMA Vice-Speaker and former delegate from the Jefferson County Medical Society. Always interested in civic affairs, Doctor Greathouse was, in 1973, elected to a four-year term as Coroner in Jefferson County. He graduated from the University of Louisville School of Medicine in 1951 and is Associate

Professor of Pediatrics at U of L. A past Secretary-Treasurer of KEMPAC, Doctor Greathouse was Vice-Chairman of the Kentucky Chapter, American Academy of Pediatrics.



VICE-SPEAKER

Carl Cooper Jr., M.D., Bedford

A former KMA Vice-President and Alternate Delegate to AMA, Doctor Cooper serves now as Chairman of the KEMPAC Board of Directors. A family practitioner in Bedford since 1953, he is a 1952 graduate of the University of Louisville School of Medicine. He formerly served as Vice-President and Director of the Kentucky Academy of Family Physicians and received the KAFP "Citizen Doctor of the Year" Award in 1970. Doctor Cooper is a Fellow of the American Academy of Family Physicians and an active participant in numerous civic organizations.



AMA Delegates

J. Thomas Giannini, M.D., Louisville

Having served as Delegate or Alternate Delegate to AMA since 1963, Doctor Giannini is the Senior AMA Delegate from Kentucky.

He graduated from the University of Louisville School of Medicine in 1938 and served in the U.S. Navy Medical Corps. Doctor Giannini previously served as Chairman of the KMA Scientific Exhibits Committee and as a delegate from the Jefferson County Medical Society. He is currently the Sec-



retary-Treasurer of the Kentucky Society for Plastic and Reconstructive Surgery and serves on the Board of the Kentucky Blue Cross Hospital Plan, Inc.

John C. Quertermous, M.D., Murray

President of KMA from 1970-71, Doctor Quertermous formerly served as Delegate to AMA from 1963-69. He is a former Chairman of the Board of Directors of KEMPAC and served for several years as Chairman for National Affairs of the KMA Committee on Legislative Activities. A 1942 graduate of the University of Louisville, Doctor Quertermous has practiced internal medicine in Murray since 1950. Besides his enthusiastic participation in Association affairs, Doctor Quertermous has also served on the Governor's Citizens Committee on the Problems of Aging.



David B. Stevens, M.D., Lexington

Doctor Stevens, an orthopedic surgeon, was elected as Delegate to AMA in 1971, having served as an Alternate Delegate since 1965. He is a member of the AMA Committee on Quackery and is a former chairman of the KMA Committee on Cults. A past President of the Fayette County Medical Society and the Kentucky Orthopaedic Society, Doctor Stevens is Assistant Clinical Professor of Surgery at the University of Kentucky College of Medicine. He graduated from Northwestern University Medical School in 1955, and is currently a member of the American Academy of Orthopaedic Surgeons.



Journal Editors

EDITOR

Walter I. Hume, Jr., M.D., Louisville

Now in his fourth year as Editor of *The Journal*, Doctor Hume previously served as Assistant Editor from 1967-70. A past President of the Jefferson County Medical Society, he now serves as a member of the KMA Committee on Public Relations and as a member of the Board of Directors of the Kentucky Foundation for Medical Care. Doctor Hume, a general surgeon, is a 1949 graduate of Harvard Medical School and is currently

Associate Clinical Professor of Surgery at the University of Louisville School of Medicine.



ASSOCIATE EDITOR

Henry B. Asman, M.D., Louisville

Doctor Asman, who has served KMA in many capacities, has been Associate Editor since 1970. He was KMA President during 1968-69 and has also served as Vice-President (1961) and Secretary (1963-67) of the Association. Doctor Asman was the first President of the Kentucky Foundation for Medical Care and is currently Director of Medical Services for Kentucky Blue Cross and Blue Shield. A 1936 graduate of the U of L School of Medicine, he has served on the Board of the Kentucky Chamber of Commerce.



ASSISTANT EDITOR

A. Evan Overstreet, M.D., Louisville

Serving as Assistant Editor of *The Journal* since 1972, Doctor Overstreet practices internal medicine in Louisville. An active participant in the activities of the Jefferson County Medical Society, Doctor Overstreet is a member of its Grievance Committee. He graduated from the University of Louisville School of Medicine in 1955 and belongs to the American Society of Internal Medicine, the American College of Physicians, and the Transyl-



vania Medical Society.

SCIENTIFIC EDITOR

Charles C. Smith, Jr., M.D., Louisville

Doctor Smith, who has served as Scientific Editor of *The Journal* for seven years, was recently chosen as President-Elect of the Jefferson County Medical Society. He has practiced internal medicine in Louisville since 1962 and is Assistant Clinical Professor of Medicine at the University of Louisville School of Medicine. A 1955 graduate of U of L, he is a Fellow of the American College of Physicians.



New Trustees

John P. Stewart, M.D., Frankfort

Elected as Trustee from the Seventh District, Doctor Stewart is an Assistant Visiting Radiologist at the University of Kentucky College of Medicine. He is a past President of the Franklin County Medical Society and is a former member of the Board of Directors of KEMPAC. A 1952 graduate of the University of Pennsylvania, Doctor Stewart is a member of the American Board of Radiology and the American College of Radiology.

James L. Ferrell, M.D., Paris

Doctor Ferrell now serves as Trustee from the Ninth KMA District. A 1951 graduate of the Medical College of Virginia, he is a past President of the

Bourbon County Medical Society. A Diplomate and Fellow of the American Board of Family Practice, Doctor Ferrell serves on the Board of Nursing Home Administrators of Kentucky and is on the staff of Bourbon County Hospital.

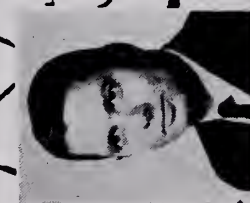
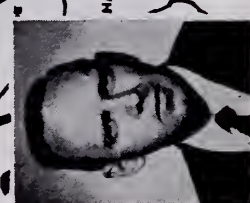
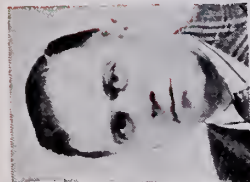
R. Eugene Bowling, M.D., Richmond

Serving as Eleventh District Trustee, Doctor Bowling is a 1955 graduate of Tulane University. He is Chairman of the Madison County Board of Health and is a past President of the Madison County Medical Society. A member and district director of the Kentucky Academy of Family Physicians, Doctor Bowling is a Diplomate of the American Board of Family Practice.

KMA District Trustees

1973-74 Associational Year

Picture
Not
Available



1. W. EUGENE SLOAN
Paducah

2. CHARLES C. KISSINGER
Henderson

3. RALPH L. CASH
Princeton

4. W. BRUCE HAMILTON
Shepherdsville

5. EDWARD N. MAXWELL*
Louisville

6. PAUL J. PARKS*
Bowling Green

7. JOHN P. STEWART
Frankfort

8. CARL J. BRUEGGEMANN
Covington

9. JAMES L. FERRELL
Paris

10. DAVID A. HULL
Lexington

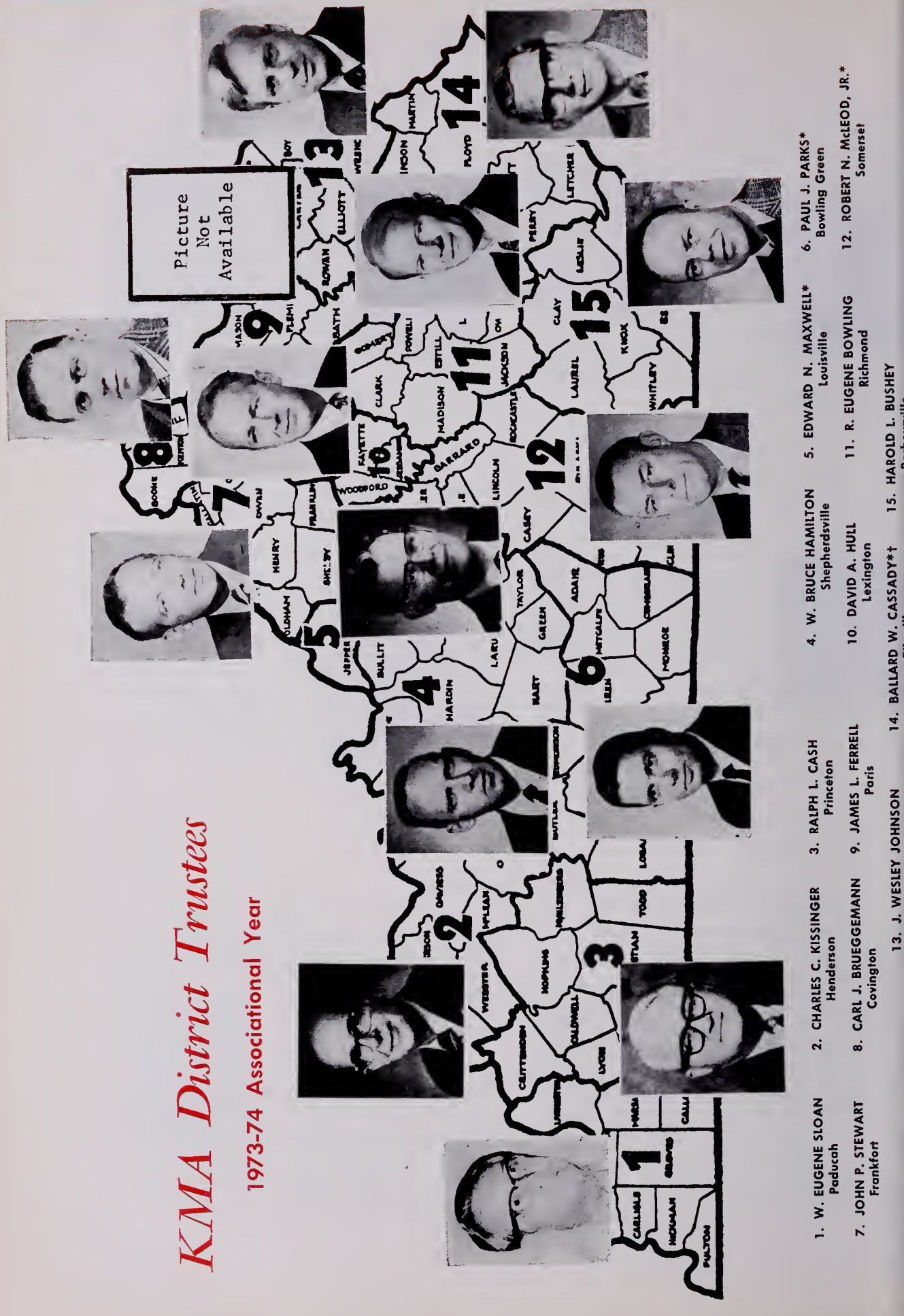
11. R. EUGENE BOWLING
Richmond

12. ROBERT N. McLEOD, JR.*
Somerset

13. J. WESLEY JOHNSON
Arlington

14. BALLARD W. CASSADY*†
Pikeville

15. HAROLD L. BUSHEY
Barbourville



KMA DELEGATES

ADAIR

James C. Salato, Columbia

ALLEN

Earl P. Oliver, Scottsville

ANDERSON

H. Boyd Caudill, Lawrenceburg

BALLARD

BARREN

Daryl P. Harvey, Glasgow

BATH

Robin A. Byron, Owingsville

BELL

Francis Forde, Middlesboro
Emanuel H. Rader, Pineville

BOONE

William R. Yates, Hebron

BOURBON

Harry L. Galloway, Paris

BOYD

J. E. Moore, Ashland
Garner E. Robinson, Ashland

BOYLE

John M. Baird, Danville

BRACKEN

James M. Stevenson,
Brooksville

BREATHITT

Robert E. Cornett, Jackson

BRECKINRIDGE

William D. Hatfield, Irvington

BULLITT

James W. Roney,
Lebanon Junction

BUTLER

Richard T. Wan, Morgantown

CALLOWAY

R. Gary Marquardt, Murray

CAMPBELL-KENTON

Joseph G. Braun,
Highland Heights
Charles D. Eversole,
Ft. Mitchell
Robert K. Johnson, Covington
Robert E. Smith, Covington
John R. Stevie, Erlanger
Jerry C. Sutkamp, Bellevue

CARLISLE

T. T. Brackin, Jr., Bardwell

CARROLL

Cecil Martin, Carrollton

CARTER

CASEY

Garnett J. Sweeney, Liberty

CLARK

CLAY

W. E. Becknell, Manchester

CLINTON

Floyd B. Hay, Albany

CRITTENDEN

R. M. Brandon, Marion

CUMBERLAND

Joseph Schickel, Burkesville

DAVIESS

James H. Callis, Owensboro
Glen Richards, Owensboro
Marilyn M. Sanders,
Owensboro

EDMONSON

Sidney E. Farmer, Brownsville

ELLIOTT

ESTILL

FAYETTE

John F. Berry, Jr., Lexington
Leslie W. Blakey, Lexington
M. Cary Blaydes, Lexington
Peter P. Bosomworth,
Lexington
T. R. Bryant, Jr., Lexington
Colby N. Cowherd, Lexington
Glenn U. Dorroh, Lexington
Richard D. Floyd, Lexington
Ward O. Griffen, Jr.,
Lexington
Richard F. Hench, Lexington
C. Nicholas Kavanaugh,
Lexington
Richard B. McElvein,
Lexington
Carl H. Scott, Lexington
John E. Trevey, Lexington
James G. Wilhite, Lexington

FLEMING

Robert W. Fidler, Flemingsburg

FLOYD

N. Roger Jurich, Prestonsburg

FRANKLIN

J. Myron Lord, Frankfort

FULTON

G. F. Bushart, Fulton

GALLATIN

John D. Fielding, Jr., Warsaw

GARRARD

O. S. Playforth, Lancaster

GRANT

Laurence M. Quill,
Williamstown

GRAVES

C. Douglas LeNeave, Mayfield

GRAYSON

Victor F. Duvall, Clarkson

GREEN

William L. Shuffett, Greensburg

GREENUP

HANCOCK

HARDIN

Terrell D. Mays, Elizabethtown

HARLAN

R. Smith Howard, Harlan
Loyal K. Wilson, Harlan

HARRISON

Don R. Stephens, Cynthiana

HART

Keene M. Hill, Horse Cave

HENDERSON

Kenneth M. Eblen, Henderson

HICKMAN

C. J. Mills, Clinton

HOPKINS

Wallace R. Alexander,
Madisonville
James G. Gulley, Madisonville

JACKSON

Donald L. Peterson, McKee

JEFFERSON

John D. Allen, Jr., Louisville
James R. Barnes, Louisville
David H. Bizot, Louisville
William H. Bizot, Louisville
Alan M. Bornstein, Louisville
McHenry S. Brewer, Louisville
Glenn W. Bryant, Louisville
Peter C. Campbell, Jr.,
Louisville
W. Neville Caudill, Louisville
Samuel H. Cheng, Louisville
Alvin M. Churney, Louisville
Charles E. Dobbs, Louisville
John H. Doyle, Louisville
Rudy J. Ellis, Louisville
Darius Ghazi, Louisville
Leonard A. Goddy, Louisville
Edward M. Haick, Louisville
Harold D. Haller, Sr.,
Louisville
R. Brooks Howard, Louisville
Arthur H. Keeney, Louisville
Robert L. McClendon,
Louisville
Clyde T. Moore, Fern Creek
Charles R. Oberst, Louisville
William J. Oliver, Louisville
C. Kenneth Peters,
Jeffersontown
Anne C. D. Richman,
Louisville
R. Parnell Rollings, Louisville
W. Fielding Rubel, Louisville

Robert P. Schiavone, Louisville
 Robert M. Senese, Louisville
 Charles B. Severs,
 Valley Station
 David C. Shipp, Louisville
 David L. Stewart, Louisville
 Walter L. Thompson, Louisville
 Lloyd G. Yopp, Louisville

JESSAMINE

J. Sankey Williams,
 Nicholasville

JOHNSON

Franklin K. Belhasen,
 Paintsville

KNOTT

Gene T. Watts, Hindman

KNOX

Rofino F. Crisostomo,
 Barbourville

LARUE

LAUREL

LAWRENCE

A. B. Richards, Louisa

LEE

Arnold L. Taulbee, Booneville

LESLIE

LETCHER

LEWIS

LINCOLN

LIVINGSTON

Stephen Burkhardt, Salem

LOGAN

C. V. Dodson, Russellville

LYON

M. H. Moseley, Eddyville

MADISON

Don F. Cloys, Richmond
 John D. Steen, Richmond

MAGOFFIN

MARION

MARSHALL

Keith E. Ellis, Benton

MARTIN

Raymond Wells, Inez

MASON

McCRACKEN

Charles J. Bohle, Paducah
 Wally O. Montgomery,
 Paducah
 James C. Seabury, Paducah

McCREARY

McLEAN

E. S. Coleman, Sacramento

MEADE

MENIFEE

MERCER

E. H. John, Harrodsburg

METCALFE

L. P. Emberton, Edmonton

MONROE

James E. Carter, Tompkinsville

MONTGOMERY

William McKenna, Mt. Sterling

MORGAN

George R. Bellamy,
 West Liberty

NELSON

James M. Millen, Bardstown

NICHOLAS

Andrew R. Hamon, Carlisle

OHIO

Robert E. Norsworthy, Hartford

OWEN

Maurice Bowling, Owenton

OWSLEY

Mildred B. Gabbard,
 Booneville

PENDLETON

Robert L. McKenney,
 Falmouth

PENNYRILE MULTI-COUNTY

Caldwell: N. H. Talley,
 Princeton
 Christian: Frank R. Pitzer,
 Hopkinsville
 Carl Caplinger,
 Hopkinsville
 Muhlenberg: Gary Givens,
 Central City
 Todd: Henry R. Bell, Elkton
 Trigg: William N. Richardson,
 Cadiz

PERRY

Keith W. Cameron, Ary

PIKE

Max P. Jones, Pikeville
 James B. Zimmerman,
 Pikeville

POWELL

Charles Noss, Stanton

PULASKI

J. Roy Biggs, Somerset
 Danny M. Clark, Somerset

ROBERTSON

ROCKCASTLE

ROWAN

Patrick J. Serey, Morehead

RUSSELL

James E. Monin, Jamestown

SCOTT

R. Kendall Brown, Georgetown

SHELBY-HENRY-OLDHAM

Willis P. McKee, Shelbyville
 Wyatt Norvell, New Castle

SIMPSON

L. F. Beasley, Franklin

SPENCER

William K. Skaggs,
 Taylorsville

TAYLOR

TRIMBLE

Carl Cooper, Bedford

UNION

Wallas N. Bell, Sturgis

WARREN

Keith M. Coverdale,
 Bowling Green
 Nelson B. Rue, Bowling Green
 Gerald E. Sullivan,
 Bowling Green

WASHINGTON

WAYNE

WEBSTER

WHITLEY

R. D. Pitman, Williamsburg

WOLFE

Paul F. Maddox, Campton

WOODFORD

William J. Graul, Versailles

MAKE YOUR RESERVATIONS NOW

It is important that you begin making your room reservations as soon as possible for the KMA Annual Meeting, September 24-26. The Ramada Inn at I-64 and Hurstbourne Lane will be the Headquarters Hotel, however there are several other accommodations within easy reach of Ramada Inn and the Bluegrass Convention Center.

REGISTRATION INFORMATION

A registration booth will be located in the Technical Exhibit Hall of the Bluegrass Convention Center throughout the Annual Meeting. The booth will open at 8:00 a.m., Tuesday, Wednesday, and Thursday, September 24-26.

Please register and wear your badge at all times while attending the meeting.

Reference Committee Activity

Speaker Richard F. Greathouse, M.D., Louisville, will assign all officers' and committees' reports and resolutions to one of six reference committees at the first meeting of the KMA House of Delegates at 9 a.m., Monday, September 23. Briefing sessions for reference committee chairmen will be held at 12:30 p.m., Monday, in the Majestic Room, Bluegrass Convention Center. Any KMA member wishing to testify on any resolution or report is urged to be present for the reference committee meetings which will be held at 2 p.m., Monday, September 23, at Bluegrass Convention Center. These open sessions will last one hour in order for all who wish to speak to be heard. Following the open hearings, the committees will go into executive sessions to study the reports, review the testimony, and write their reports to the House.

The committees' recommendations will be presented at the final session of the House, Wednesday night, September 25, in the Bluegrass Convention Center. Listed below are the reference committees appointed by Doctor Greathouse to serve during the 1974 session.

1974 Reference Committee Appointments

REFERENCE COMMITTEE NO. 1

Island Queen and Idlewild Rooms

Glenn W. Bryant, M.D., Louisville, Chairman
Peter P. Bosomworth, M.D., Lexington
C. Douglas LeNeave, M.D., Mayfield
Don E. Cloys, M.D., Richmond

REFERENCE COMMITTEE NO. 4

Grand Republic Room

McHenry S. Brewer, M.D., Louisville, Chairman
Richard B. McElvein, M.D., Lexington
W. N. Richardson, M.D., Cadiz
Jerry C. Sutkamp, M.D., Bellevue
James B. Zimmerman, M.D., Pikeville

REFERENCE COMMITTEE NO. 2

Cincinnati Room

Richard F. Hench, M.D., Lexington, Chairman
Henry R. Bell, M.D., Elkton
Arthur H. Keeney, M.D., Louisville
Nelson B. Rue, M.D., Bowling Green
Don R. Stephens, M.D., Cynthiana

REFERENCE COMMITTEE NO. 5

Delta Queen Room

N. H. Talley, M.D., Princeton, Chairman
Danny M. Clark, M.D., Somerset
Emanuel H. Rader, M.D., Pineville
R. Parnell Rollings, M.D., Louisville
William R. Yates, M.D., Hebron

REFERENCE COMMITTEE NO. 3

Eclipse Room

Raymond D. Wells, M.D., Inez, Chairman
R. Kendall Brown, M.D., Georgetown
Terrell D. Mays, M.D., Elizabethtown
Earl P. Oliver, M.D., Scottsville
Marilyn M. Sanders, M.D., Owensboro

REFERENCE COMMITTEE NO. 6

Natchez Room

Wally O. Montgomery, M.D., Paducah, Chairman
C. Nicholas Kavanaugh, M.D., Lexington
Wyatt Norvell, M.D., New Castle
Garner E. Robinson, M.D., Ashland
David L. Stewart, M.D., Louisville

OFFICIAL CALL

KMA Annual Meeting

To the officers and members of the component county medical societies of the Kentucky Medical Association.

Meeting Place

The Annual Meeting of KMA will convene on Tuesday, Wednesday and Thursday, September 24, 25 and 26, at the Bluegrass Convention Center, Louisville. The first general session will be called to order at 8:50 a.m., Tuesday.

The House of Delegates

The first regular session of the House of Delegates will convene at 9:00 a.m., Monday, September 23, in the Jeffersonian Room of Ramada Inn. The second regular business session will begin at 7:00 p.m., Wednesday, September 25, in the Banquet Area at Bluegrass Convention Center.

Registration

The registration desk will open outside the Jeffersonian Room of Ramada Inn at 8:00 a.m., Monday, September 23 and at 6:00 p.m., Wednesday, September 25 in Bluegrass Convention Center. It will

be open in the Technical Exhibit Hall of Bluegrass Convention Center from 8:00 a.m. to 5:00 p.m., Tuesday, Wednesday and Thursday, September 24-26.

House to Elect New Officers During Annual Meeting

KMA officers for the 1974-75 Associational year will be elected by the House of Delegates at the close of its final session Wednesday evening, September 25. Officers to be selected this year are:

President-Elect	(Eastern District)	One Year
Vice-President	(Central District)	One Year
Speaker, House of Delegates	*(Richard F. Greathouse, Louisville)	Three Years
Vice Speaker, House of Delegates	*(Carl Cooper, Jr., Bedford)	Three Years
Delegate to AMA	*(J. Thomas Giannini, Louisville)	Two Years
Alternate Delegate	*(Charles G. Bryant, Louisville)	Two Years
*Incumbent		

The AMA Delegate and Alternate from KMA are to be elected for two year terms, from January 1, 1975, to December 31, 1976.

ELECTIONS

Election of Trustees and Alternate Trustees

The House of Delegates will elect five district trustees and six alternate trustees at its second regular session, Wednesday, September 25. Nominations will be made by the delegates from the electing districts at a meeting following the first session of the House on Monday, September 23.

The Nominating Committee will report at the close of the first scientific session on Tuesday, September 24. Further nominations may be made from the floor at the final session of the House on Wednesday evening, September 25. All nominations are considered and acted upon by the delegates at this final session.

Districts electing trustees for three-year terms are: **FIRST DISTRICT** (incumbent, W. Eugene Sloan, M.D., Paducah); **THIRD DISTRICT** (incumbent, Ralph L. Cash, M.D., Princeton); **FOURTH DISTRICT** (incumbent, W. Bruce Hamilton, M.D., Shepherdsville); **TWELFTH DISTRICT** (incumbent, Robert N. McLeod, M.D., Somerset); **FOURTEENTH DISTRICT** (incumbent, Ballard W. Cassady, M.D., Pikeville).

Districts electing alternate trustees are the same as those electing trustees. Incumbents are Keith E. Ellis, M.D., Benton (1st); Edwin R. Davis, M.D., Hopkinsville (3rd); Emmett W. Wood, M.D., Bardstown (4th); Paul J. Sides, M.D., Lancaster (12th); and J. D. Fraim, M.D., Paintsville (14th). In addition, an alternate trustee must be elected from the 10th District to fill the unexpired term of the late Irving Kanner, M.D. of Lexington (two-year term).

Trustees and alternate trustees of the 1st and 3rd Districts are eligible for re-election, while the trustees and alternates of the 4th and 12th Districts have served two full terms and are not eligible for re-election. In the 14th District, the trustee is not eligible for re-election, but the alternate trustee is eligible.

Special Features — 1974 Annual Meeting



Bluegrass Convention Center

Ramada Inn

THE SCIENTIFIC PROGRAM, September 24, 25 and 26, will feature many timely medical topics and nationally recognized speakers. All general sessions will be held at the Bluegrass Convention Center, located at I-64 and Hurstbourne Lane behind the Ramada Inn in Louisville. Themes for these sessions include "The Sexes," "Hypertension," "Fetal and Neonatal Health," and "Food Facts and Fads."

EIGHTEEN SPECIALTY GROUPS will be meeting during the Annual Meeting on the afternoons of September 24 and 26. Meetings will begin at 1:30 p.m. this year and will be held in the Bluegrass Convention Center. All KMA members are invited to attend any of the specialty group meetings. The Kentucky Chapter, American College of Emergency Physicians will, for the first time, hold its meeting during the KMA Annual Meeting.

THE HOUSE OF DELEGATES, top policy-making body of the Association, will meet twice during this year's Annual Meeting. The first session of the House will be held at 9 a.m., Monday, September 23, in the Jeffersonian Room at Ramada Inn. The House will hold its second session in the Bluegrass Convention Center on Wednesday, September 25, at 7 p.m. New KMA officers will be elected at the final session.

THE PRESIDENT'S LUNCHEON on Wednesday, September 25 at 11:50 a.m. will feature Lieutenant Governor Julian M. Carroll as guest speaker. The Luncheon will be held in the Banquet Area of the Bluegrass Convention Center. KMA's top awards will be presented at this time, as well as the installation of the 1974-75 KMA President, Hoyt D. Gardner, M.D.

SCIENTIFIC AND TECHNICAL EXHIBITS will be on display at Bluegrass Convention Center and will feature a variety of medical products, services, and techniques. Members and guests will have the opportunity to gain the latest information about recent advances in many medical fields. Thirty-minute intermissions are scheduled during each general and specialty group session.

ALUMNI REUNIONS for five-year classes of the University of Louisville School of Medicine are planned. Information regarding these reunions may be obtained at the registration desk during the Annual Meeting.

THE WOMAN'S AUXILIARY TO KMA will hold its 52nd Annual Convention, September 23, 24 and 25 at Ramada Inn. Business sessions and special entertainment have been planned.

Emergency Messages Transferred Through 491-1929 at Meeting

A Message Center will be set up for incoming calls during the Annual Meeting where you may be reached in case of an emergency or for routine messages. The number is (502) 491-1929.

Located in the center of the Technical Exhibit Hall (Booth No. 48) at the Bluegrass Convention Center, it will be staffed at all times during the meeting. Due to the arrangement of facilities for the meeting, paging of individuals will not be possible.

Only emergency calls will be posted on blackboards in the entrance lobby of the Convention Center and in the Scientific Assembly Hall. All other messages will be kept on file at the Message Center until you

call for them; so please check there often for any messages. Other physicians can be located by leaving a message at the Message Center for them.

The phone number at the Headquarters Hotel, Ramada Inn, is (502) 491-4830. You may be reached during the meetings of the House of Delegates by calling that number. Your name will be posted on a blackboard in the front of the room when you receive a call.

You are urged to make use of the Message Center. Be sure to leave these numbers at your home, office, and hospital.

**TWELFTH KEMPAC POLITICAL SEMINAR
AND BANQUET**

to be held

Monday, September 23, 1974

6:00 p.m., CDT

Belle Hall

Bluegrass Convention Center

Carl Cooper, M.D., KEMPAC Board Chairman, urges you to get your tickets early. Tickets are \$12.50 per person; checks should be made payable to KEMPAC. Send reservations to KEMPAC, 3532 Ephraim McDowell Drive, Louisville, Kentucky 40205.

**Nominating Committee to Meet
Monday, September 23**

An open meeting of the KMA Nominating Committee will be held following the close of the first session of the House of Delegates, Monday, September 23, in the Jeffersonian Rooms of the Ramada Inn.

Any KMA member has the privilege of conferring with the Committee during this meeting. Final recommendations of the Committee will be reported at the end of the first scientific session, Tuesday morning, September 24.

Nominations may be made from the floor during the second meeting of the House of Delegates, Wednesday evening, September 25. The House will vote on the nominees at the close of this session.

Members of the Nominating Committee, chaired by Wyatt Norvell, M.D., New Castle, are: Leslie W. Blakey, M.D., Lexington; W. Neville Caudill, M.D., Louisville; Peter P. Bosomworth, M.D., Lexington; and James B. Tolliver, M.D., Whitesburg.

**MESSAGE CENTER
491-1929**

You may be reached through this number at the Bluegrass Convention Center during the KMA Annual Meeting, September 24-26.

KMGA Schedules Golf Tournament For September 26

The Kentucky Medical Golf Association will hold its annual fall tournament on Thursday, September 26 at the Hurstbourne Country Club in Louisville.

Members of KMGA may tee off anytime on that day. A buffet and business meeting with cash bar

will be held at the Club at 6 p.m. on September 26.

Assessment for the tournament is \$20.00, which includes use of electric golf carts on the day of the tournament and annual dues for KMGA. Any physician interested in joining KMGA and playing in the fall tournament should complete the following form:

MEMBERSHIP APPLICATION

To: Kentucky Medical Golf Association
Donald L. Ware, M.D.
750 Medical Towers South
Louisville, Kentucky 40202

Date _____

Gentlemen:

Please enroll me as a member of KMGA. Enclosed is my check in the amount of \$20.00 to cover enrollment and annual dues and assessment for the 1974 Golf Tournament. (Make check payable to Kentucky Medical Golf Association.)

Name _____ M.D.

Club Affiliation _____

Address _____

Current Handicap _____

Zip Code

1974 Annual Meeting Program Summary

The Kentucky Medical Association

September 22, 23, 24, 25 and 26

Bluegrass Convention Center/Ramada Inn
Louisville

SUNDAY, SEPTEMBER 22

12:30 p.m. Luncheon Meeting, KMA Board of TrusteesGrand Republic Room, Convention Center

MONDAY, SEPTEMBER 23

9:00 a.m. First Meeting, KMA House of Delegates Jeffersonian Room, Ramada Inn
12:30 p.m. Luncheon for Reference Committee ChairmenMajestic Room, Convention Center
2:00 p.m. Reference Committee MeetingsIsland Queen—Idlewild Rooms, Cincinnati Room, Eclipse Room, Grand Republic Room, Delta Queen Room, Natchez Room, Convention Center
6:00 p.m. KEMPAC Reception, Banquet and SeminarBanquet Area, Convention Center

TUESDAY, SEPTEMBER 24

8:00 a.m. RegistrationTechnical Exhibit Hall, Convention Center
8:50 a.m. Opening CeremoniesScientific Assembly Hall, Convention Center
9:00 a.m. First Scientific SessionScientific Assembly Hall, Convention Center
12:00 noon Executive Committee and Reference Committee Chairmen Luncheon and MeetingMark Twain Room, Ramada Inn
1:30 p.m. Specialty Group Sessions, Convention Center (Nine Specialty Group Sessions will be held simultaneously at this time. KMA members may attend any of these meetings. There will be no General Session at this time. See scientific program.)
5:30 p.m. Reception honoring Hoyt D. Gardner, M.D. and Mrs. Richard McElveinPoolside, Ramada Inn

WEDNESDAY, SEPTEMBER 25

9:00 a.m. Second Scientific SessionScientific Assembly Hall, Convention Center
11:50 a.m. President's LuncheonBanquet Area, Convention Center
2:00 p.m. Third Scientific SessionScientific Assembly Hall, Convention Center
4:00 p.m. Board of Trustees Meeting and Dinner (6 p.m.)Grand Republic Room, Convention Center
7:00 p.m. Meeting, KMA House of DelegatesBanquet Area, Convention Center

THURSDAY, SEPTEMBER 26

9:00 a.m. Fourth Scientific SessionScientific Assembly Hall, Convention Center
12:30 p.m. Board of Trustees Luncheon and MeetingMajestic—New Orleans Room, Convention Center
1:30 p.m. Specialty Group Sessions, Convention Center (Nine Specialty Group Sessions will be held simultaneously at this time. KMA members may attend any of these meetings. No General Session will be held. See scientific program.)

A 30-minute intermission has been scheduled during each morning
and afternoon Scientific Session for visiting
Scientific and Technical Exhibits

(Full Scientific Program starts on next page)

The Kentucky Medical Association SCIENTIFIC PROGRAM

J. Q. A. Stewart Memorial Meeting
Bluegrass Convention Center, Louisville

TUESDAY, SEPTEMBER 24

MORNING SESSION

General Session

*Fred C. Rainey, M.D., Elizabethtown
KMA President, Presiding*

- 8:50 Opening Ceremonies
THEME: "The Sexes"
- 9:00 "Life Style Options and the Physician"
Michael J. Daly, Jr., M.D., Philadelphia, Pa.
- 9:30 "Sex Today—The Making of New Myths"
Homer B. Martin, M.D., Louisville
- 9:50 Intermission to Visit Exhibits
- 10:20 "Current Concepts in Transexual Surgery"
John E. Hoopes, M.D., Baltimore, Md.
- 10:40 "The University of Minnesota Transexual Research Study"
Colin Markland, M.D., Minneapolis, Minn.
- 11:00 "Current Concepts in Marital Therapy"
James D. McNeely, M.D., Louisville
- 11:20 "Clinical Significance of Skin Lesions in the Diagnosis of Gastrointestinal Malignancies"
Morris H. Samitz, M.D., Philadelphia, Pa.

MICHAEL J. DALY, JR., M.D.
Philadelphia, Pennsylvania



Professor of Obstetrics and Gynecology, Temple University Medical Center. M.D., 1947, Temple University. National chairman, Committee on Psychosomatic Obstetrics and Gynecology, American College of Obstetricians and Gynecologists. Author of numerous articles and presentations on gynecologic oncology. Member, Association of Professors of Gynecology and Obstetrics.

HOMER B. MARTIN, M.D.
Louisville, Kentucky



Private practice in psychiatry, Louisville. M.D., 1951, University of Louisville School of Medicine. Former court psychiatrist to Baltimore County, Maryland. Member, American Psychiatric Association. Member, KMA Ad Hoc Committee on Mental Health-Mental Retardation Centers.

JOHN E. HOOPES, M.D.
Baltimore, Maryland



Professor of Plastic Surgery, Johns Hopkins University School of Medicine. M.D., 1957, Johns Hopkins. Member, American Society of Plastic and Reconstructive Surgeons, Plastic Surgery Research Council, American Burn Association, American Association of Plastic Surgeons, American Association for the Surgery of Trauma.

TUESDAY, SEPTEMBER 24

AFTERNOON SESSION

Nine Specialty Group Meetings

(The scientific programs of nine specialty groups, beginning at 1:30 p.m., will feature prominent guest speakers from throughout Kentucky and the nation. All KMA members are invited to attend the specialty group meetings of their choice. There will be no General Sessions at this time. All meetings will be held in the Bluegrass Convention Center, with the exception of the Kentucky Dermatological Society, which will meet at Louisville General Hospital.)

COLIN MARKLAND, M.D.
Minneapolis, Minnesota



Professor of Urology, University of Minnesota Medical School. M.D., 1953, Cambridge University Medical School. Editorial Board member, Urology and Journal of Human Reproduction. Fellow, American College of Surgeons, American Academy of Pediatrics. Member, European Dialysis and Transplantation Association, National Urologic Forum, American Urological Association.

JAMES D. McNEELY, M.D.
Louisville, Kentucky



Assistant Professor of Psychiatry, University of Louisville School of Medicine. M.D., 1965, University of Louisville. Adjunct professor of psychiatric information for ministers and social workers, Southern Baptist Theological Seminary. Clinical Director, Norton Psychiatric Clinic. Member, American Psychiatric Association, Central Neuropsychiatric Association.

MORRIS H. SAMITZ, M.D.
Philadelphia, Pennsylvania



Professor of Dermatology, University of Pennsylvania School of Medicine. M.D., 1933, Temple University. Chief, Graduate Hospital Department of Dermatology and Syphilology, American College of Physicians. Member, American Institute of Biological Sciences, American Industrial Hygiene Association.

DONALD G. VIDT, M.D.
Cleveland, Ohio



Head, Clinical Section on Hypertension and Nephrology, Cleveland Clinic Foundation. M.D., 1959, Ohio State University School of Medicine. Vice-Chairman, Division of Medicine and Medical Director, Physicians Clinical Assistant Program at Cleveland Clinic Foundation. Fellow, American College of Physicians, American College of Chest Physicians, American College of Cardiology.

Kentucky Society of Anesthesiologists
Natchez Room

- 1:30 "Electrical Hazards in the Operating Room"
Jerry A. Phelps, M.D., Louisville
- 2:00 "New Physiologic Knowledge as Applied to Obstetric Anesthesia"
Gertie F. Marx, M.D., Bronx, N.Y.
- 2:30 Intermission to Visit Exhibits
- 3:00 "Innovar and Dopram for Bronchoscopy"
Joseph E. Schmidt, M.D., Lexington
- 3:30 Business Meeting

Kentucky Chapter
American College of Chest Physicians
New Orleans-Island Queen-Idlewild Rooms

- 1:30 "Current Treatment of Arterial Hypertension"
Donald G. Vidt, M.D., Cleveland, Ohio
- 2:30 Intermission to Visit Exhibits
- 3:00 *Fireside Chats*
"New Pulmonary Function Studies"
David P. Nicholson, M.D., Lexington
"Cardiac Arrhythmias"
Nancy C. Flowers, M.D., Louisville
"Pulmonary Tuberculosis and Fungus Diseases"
Paul A. Pichardo, M.D., Paris
"Arterial Hypertension"
Donald G. Vidt, M.D., Cleveland, Ohio
"Pulmonary Heart Disease"
Douglas David, M.D., Louisville

Kentucky Dermatological Society
General Hospital

- 2:00 Clinical Case Discussions

Kentucky Chapter,
American College of Emergency Physicians
Eclipse Room

- 1:30 "Hypertensive Crisis"
Eliseo Perez-Stable, M.D., Miami, Fla.
- 2:15 Discussion
- 2:30 Intermission to Visit Exhibits
- 3:00 Residents Papers
- 3:30 Business Session

Kentucky Society of Pathologists
Cincinnati Room

- 1:30 "Nature and Types of Organic Disease Caused by Hypertension"
Simon Koletsky, M.D., Cleveland, Ohio
- 2:00 "Seminar on Angiosarcoma of the Liver"
Laszlo Makk, M.D., Louisville
Curtis L. Songster, M.D., Louisville
Irene E. Roedel, M.D., Lexington

**Kentucky Chapter,
American Academy of Pediatrics
Assembly Hall**

- 1:30 "R.D.S. Update"
Ernest K. Cotton, M.D., Denver, Colo.
- 2:30 "Neonatal Nosocomial Infection"
Douglas Cunningham, M.D., Lexington
- 3:00 Intermission to Visit Exhibits
- 3:30 "The Payoff on Intensive Care Nurseries"
Billy F. Andrews, M.D., Louisville
- 4:00 Business Meeting

**Kentucky Society for
Plastic and Reconstructive Surgery
Majestic Room**

- 1:30 "'Malignant-Benign' Lesions: Unsolved Problems"
John E. Hoopes, M.D., Baltimore, Md.
- 2:00 "Reduction Mammoplasty"
Raleigh R. Archer, M.D., Lexington
- 2:15 "Mammoplasty—Who Needs It?"
Tom D. Nichol, M.D., Louisville
- 2:30 Intermission to Visit Exhibits
- 3:00 "Local Anesthesia"
Morton L. Kasdan, M.D., Louisville
- 3:15 "The Management of Conveyor Belt Mining Injuries of the Upper Extremity"
Lisle Wayne, M.D., Madisonville
- 3:30 "Treatment of Hidradenitis Suppurativa"
Leonard J. Weiner, M.D., Louisville
Larry D. Florman, M.D., Louisville
- 3:45 "Use of Topical Enzyme (Travase) in Burn Debridement"
Harry D. Stambaugh, M.D., Louisville
Rick Cundiff, M.D., Louisville

**Kentucky Chapter,
American College of Surgeons
Grand Republic Room**

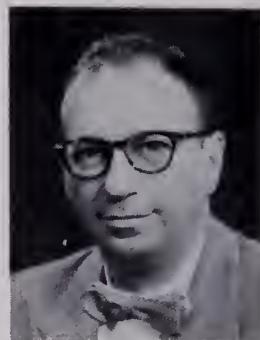
- 1:30 "Abdominal Masses in the Newborn"
Timothy G. Canty, M.D., Louisville
- 1:50 "Major Organ Failure As An Indication of Occult Intra-abdominal Abscess"
Charles L. Shields, M.D., Paducah
- 2:10 "Advances in Surgical Treatment of Cardiorespiratory Problems in the Newborn"
Laman A. Gray, Jr., M.D., Louisville
- 2:30 Intermission to Visit Exhibits
- 3:00 "Angiography, Perfusion and Operation in Upper Gastrointestinal Bleeding"
Ben Eiseman, M.D., Denver, Colo.
- 3:40 "Post-traumatic Respiratory Insufficiency—A Consideration of Etiologic Factors"
Calvin E. Jones, M.D., Louisville

**Kentucky Urological Association
Delta Queen Room**

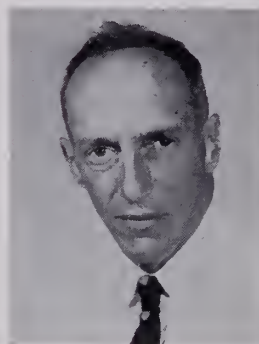
- 1:30 "Problems with Testicular Tumors"
Colin Markland, M.D., Minneapolis, Minn.
- 2:30 Intermission to Visit Exhibits
- 3:00 Pyelogram Hour
- 3:30 Business Meeting

**SIMON KOLETSKY, M.D.
Cleveland, Ohio**

Professor of Pathology, Case Western Reserve Medical School. M.D., 1934, Yale Medical School. Past President, Ohio Chapter, American Heart Association. Member, American Society for Experimental Pathology, College of American Pathologists, American Society of Clinical Pathologists. Author and co-author of numerous publications on hypertension.



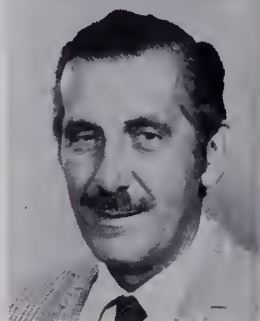
**BEN EISEMAN, M.D.
Denver, Colorado**



Professor of Surgery, University of Colorado Medical School. M.D., 1943, Harvard Medical School. Member, Council for Research and Clinical Investigation Grant Awards, American Cancer Society. Member, Committee on Pre- and Postoperative Care, American College of Surgeons. Member, American Association for the Surgery of Trauma, American Gastroenterological Society, Society of Vascular Surgery.

**ELISEO C. PEREZ-STABLE, M.D.
Miami, Florida**

Professor of Medicine, University of Miami School of Medicine. M.D., 1944, University of Havana. Chief, Medical Service, VA Hospital. Fellow, American College of Physicians. Member, American Heart Association, American Society of Nephrology, International Society of Nephrology, Southern Society for Clinical Investigation.



**MYRON W. WHEAT, JR., M.D.
Louisville, Kentucky**



Professor of Surgery; Chairman, Division of Thoracic and Cardiovascular Surgery, University of Louisville School of Medicine. M.D., 1951, Washington University School of Medicine. Secretary, American Association for Thoracic Surgery. Member, Editorial Board, American Heart Journal. Executive Committee member, Council on Cardiovascular Surgery, American Heart Association.

WALTER M. KIRKENDALL, M.D.
Houston, Texas



Professor and Director of Program in Internal Medicine, University of Texas Medical School. M.D., 1941, University of Louisville. Fellow, American College of Physicians, American College of Cardiology. Member, Scientific Council on Hypertension, International Society of Cardiology. Publications Committee member, American Heart Association. Member, American College of Chest Physicians.

ANTHONY J. BIANCO, JR., M.D.
Rochester, Minnesota



Associate Professor, Mayo Medical School. M.D., 1949, University of Minnesota. Member, Committee for the Care of the Handicapped Child, American Academy of Orthopedic Surgeons. Member, Bone and Joint Club, Pediatric Orthopaedic Society, Scoliosis Research Society, International Society of Orthopaedic Surgery and Traumatology.

WATSON A. BOWES, JR., M.D.
Denver, Colorado



Associate Professor of Obstetrics and Gynecology, University of Colorado Medical Center. M.D., 1959, University of Colorado. Participant in Institute of Development Biology, University of Wisconsin. Participant in Ross Conference on Pediatric Research. Member, American College of Obstetricians and Gynecologists.

GERTIE F. MARX, M.D.
Bronx, New York



Professor of Anesthesiology, Albert Einstein College of Medicine. M.D., 1937, University of Bern. Associate editor, Survey of Anesthesiology and Clinical Anesthesia. Chairman, Committee on Obstetrical Anesthesia, American Society of Anesthesiologists. Guest Examiner, American College of Anesthesiologists.

WEDNESDAY, SEPTEMBER 25

MORNING SESSION

General Session

Gabe A. Payne, M.D., Hopkinsville
KMA Vice-President, Presiding

THEME: "Hypertension"

- 9:00 "Hypertension: Why Do We Treat It?"
Donald G. Vidt, M.D., Cleveland, Ohio
- 9:20 "Relationship of Hypertension to Coronary Heart Disease"
Simon Koletsky, M.D., Cleveland, Ohio
- 9:40 "The Surgeon's Role in Treating Hypertension"
Ben Eiseman, M.D., Denver, Colo.
- 10:00 Intermission to Visit Exhibits
- 10:30 "Drug Treatment of Hypertension"
Eliseo Perez-Stable, M.D., Miami, Fla.
- 10:50 "Relationship of Hypertension to Acute Dissecting Aneurysm"
Myron W. Wheat, Jr., M.D., Louisville
- 11:10 "Problems in the Treatment of the Hypertensive Patient"
Walter M. Kirkendall, M.D., Houston, Tex.
- 11:30 "The Office Examination of the Child with Spinal Problems"
Anthony J. Bianco, Jr., M.D., Rochester, Minn.

PRESIDENT'S LUNCHEON

Banquet Area, Bluegrass Convention Center

11:50 a.m.

Fred C. Rainey, M.D., Elizabethtown
KMA President, Presiding

Invocation

Recognition

Awards Presentation

Richard F. Grise, M.D., Bowling Green, Chairman
KMA Awards Committee

"Healing the Impatient Public"

The Honorable Julian M. Carroll
Lieutenant Governor,
The Commonwealth of Kentucky

Installation of New KMA President

AFTERNOON SESSION

General Session

R. Glenn Greene, M.D., Owensboro
Chairman, KMA Scientific Program Committee,
Presiding

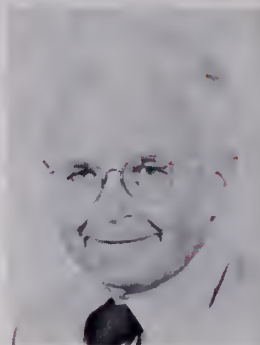
THEME: "Fetal and Neonatal Health"

- 2:10 "Intensive Care—Intrauterine Style"
Watson A. Bowes, Jr., M.D., Denver, Colo.

- 2:40 "Effects of Obstetric Anesthesia on the Fetus and Neonate"
Gertie F. Marx, M.D., Bronx, N.Y.
- 3:00 Intermission to Visit Exhibits
- 3:30 "Follow-up of Severe Lung Disease in the Newborn"
Ernest K. Cotton, M.D., Denver, Colo.
- 3:50 "Regionalization of Obstetric Care"
Sprague H. Gardiner, M.D., Indianapolis, Ind.
- 4:10 "The Values and Limitations of Chest X-Ray in the Newborn"
Loretta T. Shearer, M.D., Louisville
- 4:30 "Advances in Neonatology"
Billy F. Andrews, M.D., Louisville

ERNEST K. COTTON, M.D.
Denver, Colorado

Professor of Pediatrics, University of Colorado School of Medicine, M.D., 1954, University of Colorado. Member, Center Program Committee, National Cystic Fibrosis Foundation. Member, Western Society for Pediatric Research, American Thoracic Society. Author and co-author of numerous articles and books on pediatric pulmonary problems and respiratory disease.



THURSDAY, SEPTEMBER 26

MORNING SESSION

General Session

Paul J. Parks, M.D., Bowling Green
Vice-Chairman, KMA Board of Trustees, Presiding

THEME: "Food Facts and Fads"

- 9:00 Topic to be announced
John J. Jennings, M.D., Rockville, Md.
- 9:30 "Food, Exercise, and the First Law"
Walter L. Bloom, M.D., Atlanta, Ga.
- 9:50 "Nutrition and Oral Disease—The Factual and the Fad"
Donald L. Gambrall, D.M.D., M.P.H., Louisville
- 10:10 Intermission to Visit Exhibits
- 10:40 "Psychological Factors in Obesity"
Beverley T. Mead, M.D., Omaha, Neb.
- 11:00 "Food Facts and Myths: From Unicorn to Hogwash"
William J. Darby, M.D., New York, N.Y.
- 11:20 "Controversies in Nutrition; A View from the Catbird's Seat"
Cortez F. Enloe, Jr., M.D., Annapolis, Md.
- 11:40 "Food Allergy, the 'Red Herring' of Otolaryngology"
S. C. Missal, M.D., Cleveland, Ohio

SPRAGUE H. GARDINER, M.D.
Indianapolis, Indiana



Professor of Obstetrics and Gynecology, Indiana University School of Medicine. M.D., 1934, University of Michigan. Post President, American College of Obstetricians and Gynecologists. Consultant on Infant Mortality Study, Health Services Research Study. AMA Commissioner on Joint Commission on Accreditation of Hospitals. AMA Delegate, Section on OB-GYN.

LORETTA T. SHEARER, M.D.
Louisville, Kentucky



Assistant Professor of Radiology, University of Louisville School of Medicine. M.D., 1964, University of Louisville. Member, Greater Louisville Radiological Society, Society for Pediatric Radiologists, American College of Radiology. Associate Radiologist, Children's Hospital.

Specialty Group Meeting

Kentucky ENT Society Delta Queen Room

- 9:00 Business Meeting
- 9:30 "Potpourri of ENT Allergy"
S. C. Missal, M.D., Cleveland, Ohio

BILLY F. ANDREWS, M.D.
Louisville, Kentucky



Professor and Chairman, Department of Pediatrics, University of Louisville School of Medicine. M.D., 1957, Duke University School of Medicine. Director, Newborn Services, U Affiliated Hospitals. Recipient KMA Faculty Scientific Achievement Award. Director, Comprehensive Health Care Center for High Risk Infants and Children, University of Louisville. Member, Royal Society of Medicine Fellow, American Academy of Pediatrics.

AFTERNOON SESSION

Eight Specialty Group Meetings

(Eight specialty groups will meet at 1:30 p.m., with outstanding speakers appearing on the programs. All KMA members are invited to these meetings. No General Session will be held. All specialty group meetings will be held in the Bluegrass Convention Center.)

WALTER L. BLOOM, M.D.
Atlanta, Georgia



Associate Vice-President for Academic Affairs, Georgia Institute of Technology. M.D., 1940, Yale University. Member, Southern Society for Clinical Investigation, American Society for Clinical Investigation. Author and co-author of numerous articles on metabolism in obesity.

DONALD L. GAMBRALL, D.M.D.
Louisville, Kentucky



Coordinator, Preventive Dentistry Section, Department of Community Dentistry, University of Louisville School of Dentistry. D.M.D., 1964, University of Louisville. USPHS Regional Dental Consultant. Member, American Association of Public Health Dentists, Kentucky and American Public Health Associations, American Society for Preventive Dentistry.

BEVERLEY T. MEAD, M.D.
Omaha, Nebraska



Professor and Chairman, Department of Psychiatry, Creighton University School of Medicine. M.D., 1947, Medical College of South Carolina. Fellow, American Psychiatric Association, American Geriatric Society.

WILLIAM J. DARBY, M.D.
New York, New York



President, The Nutrition Foundation, Inc. M.D., 1937, University of Arkansas. Professor of Medicine in Nutrition, Vanderbilt University School of Medicine. Advisory Council, Journal of Nutrition Education. President, Citizens' Commission on Science, Law and the Food Supply. Fellow, American Association for the Advancement of Science, American College of Physicians.

**Kentucky Chapter,
American Academy of Family Physicians
Majestic-New Orleans Rooms**

- 1:30 "If I Were A Family Physician"
Cortez F. Enloe, Jr., M.D., Annapolis, Md.
- 2:30 Intermission to Visit Exhibits

**Kentucky Industrial Medical Association
Cincinnati Room**

- 1:30 "The Obese Person at Work"
Walter L. Bloom, M.D., Atlanta, Ga.
- 2:30 Intermission to Visit Exhibits

**Kentucky Obstetrical
and Gynecologic Society
Island Queen-Idlewood Rooms**

- 1:30 "Premature Rupture of Membranes—A Persistent Enigma"
Watson A. Bowes, Jr., M.D., Denver, Colo.
- 2:00 "The American College and Its Relationship to State Societies"
Sprague H. Gardiner, M.D., Indianapolis, Ind.
- 3:00 Intermission to Visit Exhibits
- 3:30 Business Meeting
A change in the constitution regarding possible affiliation with the American College of Obstetricians and Gynecologists will be considered.

**Kentucky Orthopaedic Society
Natchez Room**

- 1:30 "The Treatment of the Destroyed Hip in the Child"
Anthony J. Bianco, M.D., Rochester, Minn.
- 1:50 "Skeletal Lymphangiektasia"
James W. Harkess, Ch.B., M.B., Louisville
- 2:10 "Pathologic Fractures in Children with Bone Cysts"
W. Mack Jackson, M.D., Danville
- 2:30 Intermission to Visit Exhibits
- 3:00 "Soft Tissue Reconstruction in Orthopedic Complications"
Norman M. Cole, M.D., Louisville
- 3:30 "A Case of Kyphosis and Paraparesis Due to Neurentic Cyst"
Harry L. Bailey, M.D., Lexington
- 3:40 "Distal Femoral Epiphyseal Injuries; Experience at Kosair Hospital"
W. Jerry Stodghill, M.D., Louisville
K. Thomas Reichard, M.D., Louisville

**Kentucky Chapter,
American College of Physicians
Grand Republic Room**

- 1:30 "The Problem of Chest Pain and Normal Coronary Arteriography"
Robert R. Goodin, M.D., Louisville
- 1:50 "Gonorrhea"
Robert C. Noble, M.D., Lexington

- 2:10 "Aspirin in Thromboembolic Disease"
Ellis A. Fuller, M.D., Louisville
- 2:30 Intermission to Visit Exhibits
- 3:00 "Arterial Hypertension"
Walter M. Kirkendall, M.D., Houston, Tex.
- 3:30 "Differential Diagnosis of Arthritis by Joint Fluid Analysis"
Frank W. Lehn, M.D., Louisville

Kentucky Psychiatric Association Assembly Hall

- 1:30 "Psychiatry's 'Future Shock' "
Beverley T. Mead, M.D., Omaha, Neb.
- 2:30 Business Meeting

Kentucky Association of Public Health Physicians Delta Queen Room

To Be Announced

Kentucky Chapter, American College of Radiology Eclipse Room

- 1:30 "Radiologic Evaluation of Angiosarcoma of the Liver and Other Abnormalities Associated with Vinyl Chloride Exposure"
Joseph G. Whelan, Jr., M.D., Louisville
Mr. Jack F. Ditty, Jr., Louisville

CORTEZ F. ENLOE, JR., M.D. Annapolis, Maryland



Editor and Publisher, *Nutrition Today*. M.D., 1937, Friedrich-Wilhelms University of Berlin. National consultant to Federal Civil Defense Administrator. Fellow, Royal Society of Medicine, Aero-Space Medical Association, American Geriatrics Society, American College of Preventive Medicine, American College of Angiology.

S. C. MISSAL, M.D. Cleveland, Ohio



Private practice in otolaryngology, Cleveland. M.D., 1935, University of Michigan Medical School. Past president, American Society of Ophthalmologic and Otolaryngologic Allergy. Fellow, American College of Allergists. Member, American Academy of Facial, Plastic and Reconstructive Surgery; American Laryngology, Rhinology and Otology Society.

J. Q. A. Stewart, M.D. Honored At 1974 Annual Meeting

The 1974 KMA Annual Meeting will honor the 1894 President of the Association by officially entitling this year's meeting, "The J.Q.A. Stewart Memorial Meeting."



Doctor Stewart

Originating in 1935, either a past president of KMA or some distinguished physician that has contributed to Kentucky medicine is honored during the Annual Meeting.

Eugene H. Conner, M.D., Louisville, KMA Historian, has written a biography of Doctor Stewart which will appear in the official Annual Meeting program booklet, that is to be distributed during the meeting.

U.L. Alumni Reunions Planned During KMA Annual Meeting

Reunions are being planned for alumni from nine classes of the University of Louisville School of

Medicine. The reunions are scheduled to be held during the KMA Annual Meeting, September 24-26.

Information regarding the reunions may be obtained through the chairmen of the five-year classes listed below or through the U.L. Alumni Office, (502) 636-4151.

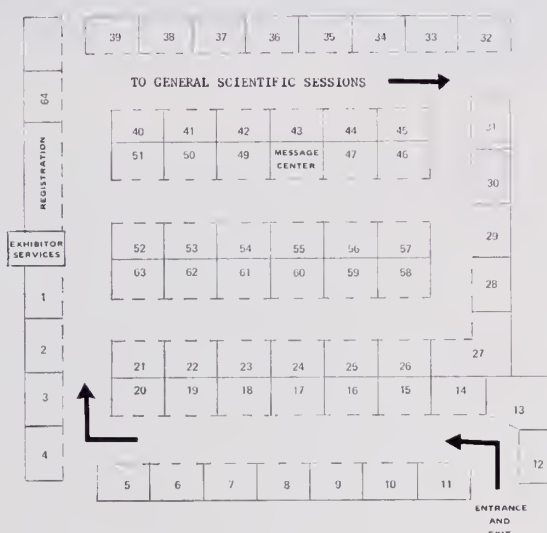
- 1929—J. Richard Gott, M.D., 136 Indian Hills Trail, Louisville, 893-5588.
- 1934—Rudy F. Vogt, M.D., (co-chairman), 3333 Bardstown Road, Louisville, 452-2648.
Eugene Blake, M.D., (co-chairman), Tallahassee, Florida.
- 1939—Herbert L. Clay, M.D., 568 Medical Towers South, Louisville, 587-1251.
- 1944—Nathan I. Handelman, M.D., Suite 6-E, Suburban Medical Plaza, Louisville, 897-7137.
- 1949—S. Pearson Auerbach, M.D., 1003 Doctors Office Building, Louisville, 584-7207.
- 1954—Milton F. Miller, M.D., 662 Medical Towers South, Louisville, 583-0453.
- 1959—Morton F. Wolfe, M.D., Professional Arts Building, New Albany, Indiana, 944-8475.
- 1964—Robert R. Goodin, M.D., Louisville General Hospital, Louisville, 589-4321, Ext. 203.
- 1969—Will S. Foster, Jr., M.D., G-24 Medical Arts Building, Louisville, 451-1448.

1974 Technical Exhibitors To Offer Information On Latest Advances in Products, Services

The latest developments in medical techniques and information will be featured in the numerous technical exhibits at the 1974 Annual Meeting. Located in the Bluegrass Convention Center, the exhibitors will be available to discuss the latest discoveries and innovations in their products and the most up-to-date advances in their services.

All exhibits have been prepared carefully and skillfully to appeal to you, the physician, and have been geared to your special interests as a practitioner. You will have a unique opportunity to secure a vast amount of knowledge and information conveniently and effortlessly in a short period of time.

In order to give every KMA member and guest ample time to take advantage of this opportunity, 30-minute intermissions for visiting the exhibits have been scheduled during each general and specialty group session.



Floor Plan of Technical Exhibits

1974 TECHNICAL EXHIBITORS

Abbott Laboratories (20)
 Arnar Stone Laboratories (33)
 Blue Cross and Blue Shield of Kentucky (11)
 Burroughs Wellcome Company (12)
 CIBA Pharmaceutical Company (4)
 Cooper Laboratories (63)
 Coulter Electronics (29)
 Crocker-Fels Company (19)
 Dairy Council of the Mid-South (10)
 Dictaphone Corporation (54)
 Dow Pharmaceuticals (23)
 Doyle Pharmaceutical Company (53)
 Eaton Laboratories (40)
 The Emko Company (25)
 Encyclopaedia Britannica (61)
 First National Bank of Louisville (28)
 General Medical of Louisville (62)
 Glencoe Research (39)
 Guild of Rx Opticians of Kentucky (24)
 John Hancock Life Insurance Company (7)
 Kvaes Laboratories (50)

Lakeside Laboratories (22)
 Lang Company (36)
 Lederle Laboratories (59)
 A. P. Lee Agency (16)
 Eli Lilly and Company (21)
 J. B. Lippincott Company (13)
 Lorillard (45)
 Louisville Medical Laboratory (26)
 Malkin Instrument Company (52)
 Marion Laboratories (44)
 Mead Johnson Laboratories (58)
 Medical Protective Company (1)
 Metropolitan—Medicare (9)
 Meyer Laboratories (34)
 Mutual Benefit Life Insurance Company (60)
 Ortho Pharmaceutical Corporation (51)
 Parke, Davis and Company (3)
 Pathology and Cytology Laboratories (56)
 Pfizer Laboratories (8)
 Physicians Counselors (49)
 William P. Poythress and Company (6)
 Professional Accounting Systems (27)

Ransdell Surgical (35)
 Paul Revere Company (30)
 R. J. Reynolds Tobacco Company (5)
 A. H. Robins Company (14)
 Roche Laboratories (57)
 Sandoz Pharmaceuticals (17)
 W. B. Saunders Company (37)
 Schering Laboratories (32)
 Science Editors (64)
 Clayton L. Scroggins Associates (2)
 Searle Laboratories (31)
 Sherman and Fletcher (43)
 Sheryl Pharmaceuticals (38)
 E. R. Squibb & Sons (46)
 Stuart Pharmaceuticals, Division of ICI United States, Inc. (18)
 United States Air Force Medical Services (42)
 USV Pharmaceutical Corporation (41)
 Max Woche and Son Company (15)
 Wyeth Laboratories (47)
 Zimmer Kloebe of Kentucky (55)

A Link in the Chain

u

The Woman's Auxiliary to the Kentucky Medical Association is again pleased to announce that its Annual Convention will be held in conjunction with the Annual Meeting of KMA.

x

This, our 52nd Convention, has been planned to include *every* physician's wife. Time is allotted for conducting business, for workshops in various areas of concern, and for gathering socially just to enjoy and get to know each other. Effort has even been made to provide free time. Even if your wife is not an Auxiliary member, or is presently inactive, she is cordially invited to any or all events.

Mrs. William Pearson, President
Woman's Auxiliary to KMA

i

WOMAN'S AUXILIARY to the
KENTUCKY MEDICAL ASSOCIATION

announces

52nd ANNUAL CONVENTION

September 23-25, 1974

e

RAMADA INN

HURSTBOURNE LANE

LOUISVILLE, KY.

i

MONDAY, SEPTEMBER 23

2:30 p.m. - 4:00 p.m. Pre-Convention Board Meeting

6:00 p.m. KEMPAC Reception, Dinner and Seminar

a

TUESDAY, SEPTEMBER 24

8:30 a.m. - 9:30 a.m. Continental Breakfast

9:00 a.m. - 11:30 a.m. WA-KMA House of Delegates Session

(Afternoon activities to be announced)

5:30 p.m. - 7:00 p.m. Reception Honoring KMA and WA-KMA
Presidents-Elect

z

WEDNESDAY, SEPTEMBER 25

8:30 a.m. Past Presidents Breakfast

Installation of 1974-75 Auxiliary Officers

10:00 a.m. - 11:00 a.m. Post-Convention Board Meeting

11:50 a.m. KMA President's Luncheon

2:30 p.m. - 4:30 p.m. Auxiliary Workshops *(Specific area to be announced)*

y

7:00 p.m. Auxiliary Hospitality



ORGANIZATION SECTION



Dr. Gardner Elected to Serve On AMA Board of Trustees

The American Medical Association House of Delegates, at its recent Annual Meeting in Chicago, elected Hoyt D. Gardner, M.D., Louisville, to a three-year term on the AMA Board of Trustees. In addition, Doctor Gardner has been named to serve as a member of the Executive Committee of the AMA Board.

Doctor Gardner is President-Elect of the Kentucky Medical Association and will be installed as Association President during the President's Luncheon to be held September 25 during the KMA Annual Meeting.

At a meeting of the University of Louisville Board of Trustees on July 15, Doctor Gardner was elected as Chairman of the UL Board for a one-year term.

A general surgeon, Doctor Gardner is a Past President of the Jefferson County Medical Society and has served on numerous KMA and Jefferson County committees, including a 12-year tenure as Chairman for National Affairs of the KMA Committee on Legislative Activities. A past Chairman of KEMPAC, Doctor Gardner served two years as Chairman of the Board of Directors of AMPAC and is a past Secretary-Treasurer of that organization.

Drs. Parrott, Gardner Elected At AMA Annual Convention

Delegates to the 123rd Annual Convention of the American Medical Association held in Chicago, June 23-27, acted on 66 reports and 137 resolutions, meeting for a total of 19 hours and 38 minutes. Max H. Parrott, M.D., Portland, Ore., was named AMA President-Elect and Louisville physician and KMA President-Elect, Hoyt D. Gardner, M.D., was elected to a three-year term on the AMA Board of Trustees.

A change in the method of electing AMA Trustees, a definitive policy statement on PSRO's, the need for additional safeguards to preserve the confidentiality of medical records, and new recommendations which affect the relationship between hospitals and hospital medical staffs were among the important items approved by delegates during the meeting. Full details on all action taken may be found in the July 1/8, 1974 issue of *American Medical News*.

United States Vice-President Gerald Ford, in an address before the AMA House, advocated some form of national health insurance, but warned that there should be no further erosion of patient confidentiality in the process of its development.

In his inaugural address, Malcolm C. Todd, M.D., the new AMA President, asked the delegates to con-

sider the formation of a "National Academy of Health" to formulate a national policy which would give both private and public sectors of health care "an open forum and framework in which to exchange views . . . evaluate total health care resources and arrive at some common sense of purpose, with sound programs, goals and priorities."

In addition to Doctors Parrott and Gardner, other physicians elected or re-elected to positions in AMA were: Vice-President, Joseph Ribar, M.D., Alaska; Speaker of the House, Tom E. Nesbitt, M.D., Tenn.; Vice-Speaker, William Rial, M.D., Penn.; Trustees, Daniel Cloud, M.D., Ariz.; James Blake, M.D., N.Y.; Raymond Holden, M.D., D.C.; Frank Jirka, M.D., Ill.; and Joe Nelson, M.D., Texas.

UL Plans "Alumni Weekend" For September 21-22

The University of Louisville School of Medicine, in an effort to encourage its medical school alumni to become acquainted with the facilities of the Health Sciences Center and with the advances, techniques and philosophies that are taking place in its various departments, has planned its first "Alumni Weekend" for September 21-22.

The scientific program, which will be held in the HSC auditorium, is acceptable for three credit hours in Category I for the Physician's Recognition Award of the AMA. Application for three prescribed credit hours from the AAFP has also been made.

Beginning at 1 p.m. on Saturday, September 21, the scientific program will include individual sessions from the departments of family practice, medicine, obstetrics and gynecology, psychiatry and surgery. Faculty of the medical school will make presentations on many varied subjects of interest to today's physician.

Several social events will take place at the Louisville Convention Center on Saturday evening, September 21, beginning at 7 p.m. A "Super Pops" concert by Errol Garner with the Louisville Orchestra is one of the highlights that evening. Special activities for physicians' wives have been planned during the scientific session.

On Sunday, September 22, at 2 p.m., Arthur H. Keeney, M.D., Dean of the UL School of Medicine, will present "The Seven Stages of Man—Shakespearean Value Guides in Modern Medical Literature" with dramatic highlights by the Summer Shakespearean Theater. A reception and tour of the Health Sciences Center will conclude the weekend session.

1974 KMA Annual Meeting Gets Continuing Education Credit

The American Medical Association has approved this year's Annual Meeting for up to 13 prescribed hours toward Category I of the Physician's Recognition Award. Credit is determined on an hour for hour basis.

Sixteen hours of prescribed credit have been applied for from the American Academy of Family Physicians. Approval of this will be announced in the Annual Meeting Program Booklet which is distributed at the meeting.

In Memoriam

JOSEPH E. WARREN, M.D.
Lexington
1913-1974

Joseph E. Warren, M.D., Lexington, died on May 23 at the age of 60. Chief of Rehabilitation Medicine at the University of Kentucky College of Medicine, Doctor Warren was a 1937 graduate of Harvard University. He was a former co-chairman of the KMA Committee on Occupational Health, Physical Medicine and Rehabilitation and was a member of the Board of the American College of Physicians. Doctor Warren also belonged to the Fayette County Medical Society and the American Medical Association.

RAYMOND C. COMSTOCK, M.D.
Louisville
1906-1974

Raymond C. Comstock, M.D., Louisville, 67, died on May 30. A 1935 graduate of the University of Louisville School of Medicine, Doctor Comstock practiced internal medicine for almost 40 years. He was a member of the Jefferson County Medical Society, as well as the Kentucky Medical Association.

RALPH D. LYNN, M.D.
Elkton
1919-1974

Ralph D. Lynn, M.D., Elkton, died on May 31 at the age of 55. A general practitioner, Doctor Lynn graduated from the University of Louisville in 1943. He was an active member of the Pennyrile Medical Society, as well as the Kentucky and American medical associations.

JAMES H. BREWER, M.D.
Louisville
1903-1974

James H. Brewer, M.D., 71, died on June 20 in Louisville. A 1928 graduate of the University of Louisville School of Medicine, he had practiced general surgery in Louisville for 35 years. He was

a member of the Southern Medical Association, the Jefferson County Medical Society, and the Kentucky Medical Association.

IRVING F. KANNER, M.D.
Lexington
1913-1974

Irving F. Kanner, M.D., Lexington, died on June 30 at the age of 61. A 1937 graduate of Western Reserve University, Doctor Kanner was Professor of Medicine at the University of Kentucky College of Medicine and had been in private practice in internal medicine in Lexington since 1938.

A past President of the Fayette County Medical Association, Doctor Kanner served as KMA Tenth District Alternate Trustee since 1968. He was Immediate Past President of the Kentucky Society of Internal Medicine and had served as a member of its Board of Governors. He was a member of the American Society of Internal Medicine and the American College of Physician's Governor's Advisory Committee.

AMA Accredits CME Courses Offered by U of L

The Department of Continuing Education of the University of Louisville School of Medicine has recently announced that accreditation has been granted by the AMA for all continuing medical education courses offered by the school.

Initiated by AMA, the accreditation process provides local physicians with the opportunity for formally recognized postgraduate training. Credit received from attending these courses offered by accredited schools may be applied toward some specialty society education requirements, the AMA Physicians Recognition Award, and others.

For more information on courses to be offered by the University of Louisville, contact: *Gerald Swim, Assistant Director, Office of Continuing Education, University of Louisville School of Medicine, Health Sciences Center, Louisville 40202.*

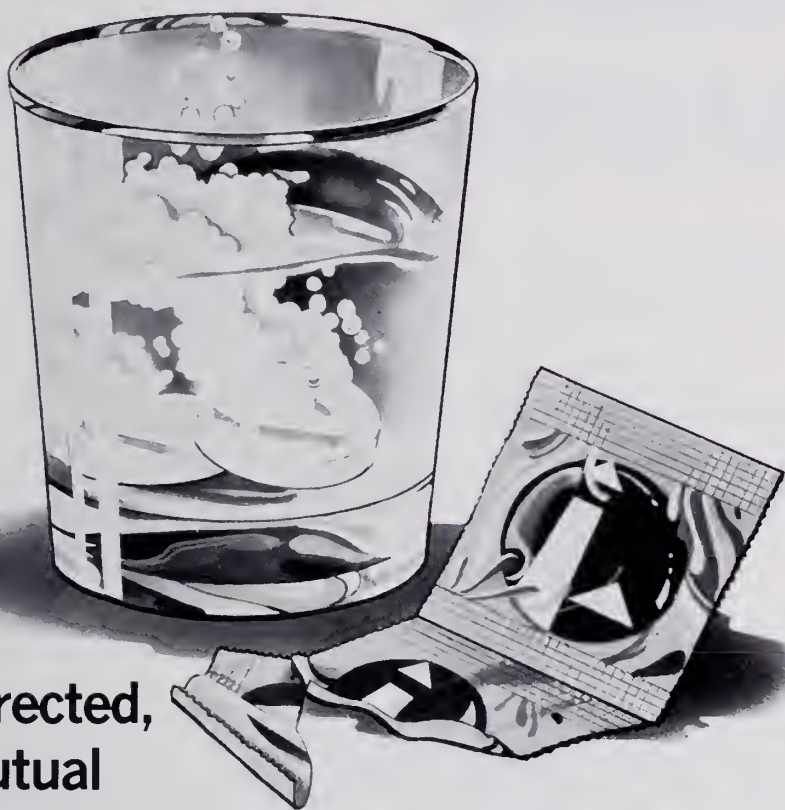
Respiratory Distress Syndrome (Continued from page 415)

8. Delivoria-Papadopoulos, M., Miller, L.D., Branca P.A., Forster, R.E., and Oski, F.A.: Effect of exchange transfusion on altering Mortality in: (1) Infants weighing less than 1250 grams at birth and (2) Infants with severe respiratory distress (RDS): *Pediatric Research*. 7:291 April, 1973.

9. Valtis, D.J., Kennedy, A.C.: Defective gastranspor function of stored red-blood cells, *Lancet* 1:119, 1954

10. Bunn, H.F., May, M.H., Kocholat, W.F., and Shields, C.R.: Hemoglobin function in stored blood *J. Clin. Invest.* 48:311, 1969.

Doctor tested.



When as directed,
Unionmutual
provides fast, permanent relief from
occasional income protection irregularity.

The relief is permanent because Unionmutual's income protection policy is non-cancellable. And that means you never have to worry about premiums going up. Or, even worse, unexpected cancellation.

We'll even insure your specialty. Which means you can continue working in medicine — in the event you are unable to work in your specialty — and *still* receive full benefits.

So if you sometimes suffer from income protection irregularity, take doctor tested Unionmutual and feel better fast.

For more information, consult your Unionmutual representative.

For more information, please send me information about your disability programs.

_____, M.D.

Address



William M. Gore, C.L.U. & Associates
General Agent
664 Starks Building
Louisville, Kentucky 40202
(502) 583-1544

Unionmutual
We're good medicine.

General LEASING

Doctor! This is Your Own Plan
ENDORSED BY THE

Kentucky Medical Association

for the leasing of

cars—all makes & models,
Medical, Surgical & Laboratory
Equipment
and Office Furnishings.

**13 YEARS EXPERIENCE
IN THIS FIELD**

General Leasing CORPORATION

121 Bauer Ave. St. Matthews

(502) 896-0383

GENERAL SURGEON

Board certified/eligible. Office s
(for thriving practice) provided in
bed Hospital in excellent commu
Please reply to **David E. Burgio, Ad**
istrator, Berea Hospital, Inc., Berea,
tucky 40403

(606) 986-3151

PHYSICIANS

Private practice (solo, partner
groups) opportunities exist in se
communities within the state of Ken
(Morganfield, Mayfield, Bowling C
and Frankfort). As a public servi
these communities, we are perform
free, no obligation, service acting
liaison between physicians interest
practice opportunities and commu
in need of their services. These co
nities have modern, JCAH approved
pitals, modern offices, and recog
needs for additional physicians.

For details call collect 615-327-
or write with C.V. to:

E. J. Ryan, Jr., Corporate Direc
Medical Relations
Hospital Corporation of Americ
One Park Plaza
Nashville, Tennessee 37203

PHYSICIANS WANTED

General Practitioner — Excellent con
and facilities available. 100-bed genera
cal/Surgical Hospital. Active Outpatient
Many benefits — Salary dependent on c
tions and experience. Exciting and ch
career in progressive Co-Educational In
For additional info please contact **L. G. G**
Warden, or Jimmie D. Hawthorne, M.D
Mental Health, Federal Correctional In
P.O. Box 2000, Lexington, Ky. 40507; pho
255-6812.

AN EQUAL OPPORTUNITY EMPL

KMA Provides Placement Service To Physicians, Communities

Perhaps you have just completed your internship, residency, military obligation or have some other reason for needing to make a change. Perhaps you are a physician in practice and need an associate or replacement. If so, the KMA Physicians Placement Service is available to help you.

The Physicians Placement Service is designed to help physicians find a desirable area in which to establish a practice or to relocate and to help established physicians find associates.

A semiannual listing of "Opportunities for Practice in Kentucky" is published by the Placement Service. This report lists over 100 areas in Kentucky that need family practitioners either in association with another physician or as a replacement. The Service maintains a similar listing of areas in need of medical specialists. Opportunities for partnership or group practice are also listed and requests are accepted from both physicians and communities for satisfactory placement.

As an additional service the KMA Physicians Placement Service also publishes, "Physicians Seeking Locations," a quarterly listing. This is compiled from data received from the American Medical Association, requests from recipients of the Rural Kentucky Medical Scholarship Fund, interns and residents in Kentucky, and personal inquiries to the KMA office.

It is the policy of the Placement Service to provide a two-way flow of information between interested parties, rather than try to "place" physicians in the "right" practice situation.

The Service sends a questionnaire to the applicant physician to obtain information on his educational background, his interests, and preference of type of practice. Upon return of the questionnaire, the physician is sent a list of openings in his area of interest. Each opening is detailed on its facilities for home life, office space, proximity to hospital facilities, and other specifics.

Each physician contacting this office for assistance in finding a suitable location for practice is requested to complete a questionnaire in order that his name may be carried on the next listing of "Physicians Seeking Locations."

All qualified physicians who request assistance from the Placement Service are given help. An applicant need not be a member of the Kentucky Medical Association and there is no charge either to the physician or to the community seeking the services of this program.

Inquiries may be addressed to the Physicians Placement Service, Kentucky Medical Association, 3532 Ephraim McDowell Drive, Louisville, Kentucky 40205.

Two old friends are waiting for you.....

QUALITY & SERVICE

OPERATED BY  **forum** Hotels

RAMADA INN®

**Ramada Inn /
Bluegrass Convention Center
Sternwheeler Dining Room
Rolling Barrel Lounge
I-64 at Hurstbourne Lane**



EYES RIGHT!

...to SOUTHERN OPTICAL

LOUISVILLE Southern Optical Bldg. — 640 S. 4th
 Contact Lenses — 640 S. 4th
 Medical Towers Bldg., Floyd & Gray
 Doctors Office Bldg., Liberty at Floyd
 Medical Arts Bldg., 1169 Eastern Parkway
 Professional Bldg. East, 3101 Breckinridge Lane
 Medix Bldg. — Adj. S.S. Mary & Elizabeth Hosp.

ST. MATTHEWS 313 Wallace Center and 108 McArthur Drive

NEW ALBANY Professional Arts Bldg., 1919 State Street

BOWLING GREEN 524 East Main Street

OWENSBORO Doctors Bldg., 1001 Center Street



*Southern
Optical*

CHARGE ACCOUNTS
 INVITED
 BankAmericard
 Master Charge

Professional



Protection

CONTINUOUSLY

Since 1899

**THE
 MEDICAL PROTECTIVE COMPANY
 FORT WAYNE, INDIANA**

LOUISVILLE OFFICE: Riley Lassiter, Representative
 Suite 260
 Shelbyville Road Mall Office Center
 400 Sherburn Lane
 Telephone: (Area Code 502) 895-5501
 Mailing Address: P.O. Box 20065, Louisville, Kentucky 40220

Welcome to Portland, Oregon for the 28th Clinical Convention

November 30-December 4, 1974



"In this age of specialization, there's a vital need for discussion of the broader implications of new-found knowledge. The 28th AMA Clinical is designed for that purpose...to bring together physicians of the various specialties to study and discuss the broader aspects of medicine as they apply to their practices."

Huldrick Kammer, M.D., Chairman
Council on Scientific Assembly



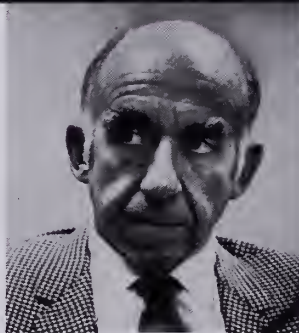
For further details, write:
Circulation & Records Dept.
American Medical Association
535 North Dearborn Street
Chicago, Illinois 60610

The Role of the Detail Man

Dr. Willard Gobbell
Family Physician
Encino, California



Dr. Jeremiah Stamler
Chairman
Department of Community
Health and Preventive
Medicine, and Dingman
Professor of Cardiology
Northwestern University
Medical School



"I may be prejudiced, but I am very much in favor of the detail man I meet. Most of them are knowledgeable about the drugs they promote and can be a great help in advising me with new medication."

Family Physician's Perception

I think that most general practitioners in this area feel good about the detail man. Over the years I have gotten to know many of the men who visit me regularly. In turn they have become aware of my particular interests and the nature of my practice. They, therefore, limit their discussion as far as possible to the areas of interest to me. Since I usually see the representative again in future visits, it is in his best interest to supply me with the most honest, factual, as well as up-to-date information about his products.

"In the total picture of medicine with health problems in this country there is a potential for the detail man to play a meaningful role."

The Positive Influence

My contact with representatives and salesmen of the pharmaceutical industry is the type of contact that people in a medical research people, and academic people have and that's in all on a somewhat different level than that of the practicing physician.

Let me touch on how I actually perceive the role of the representative. These men and large numbers of health professionals. Thus they could be at times actually are — disseminators of useful information. They could consistently serve an educational function in their area and discuss their products.

At present they do disseminate printed material, brochures, pamphlets — some of it scientifically sound and therefore truthful — as well as some excellent produced by the pharmaceutical industry. When they function

Opinion & Dialogue

Source of Information?

is, with certain reservations. The sales representative is a great fund of information on the drug products he is responsible for. He is usually able to answer most questions fully and promptly. He can also supply a number of articles that contain a great deal of information. Here, we must exercise some caution. I usually suspect most of the statements and opinions that I find in the medical studies which come from the larger teaching facilities. Without saying that a physician should also rely on other sources for his information on a particular drug or policy.

Role of Sales Representatives

Usually, a candidate for the position of a sales representative of a pharmaceutical company is a graduate pharmacist with a questioning mind. I don't think it is possible in every case, but it becomes the responsibility

of the pharmaceutical company to train these individuals comprehensively. It is of very great importance that the detail man's knowledge of the product he represents be constantly reviewed as well as up-dated. This phase of the sales representative's education should be a major responsibility of the medical department of the pharmaceutical company.

I am certain that most of these companies take special care to give their detail men a great deal of information about the products they produce—information about indications, contraindications, side effects and precautions. Yet, although most of the detail men are well informed, some, unfortunately, are not. It might be helpful if sales representatives were reassessed every few years to determine whether or not they are able to fulfill their important function. Incidentally, I feel the same way about periodic assessments of everyone

in the health care field, whether they be general practitioners, surgeons or salesmen.

Value of Sampling

I personally am in favor of limited sampling. I do not use sampling in order to perform clinical testing of a drug. I feel that drug testing should rightly be left to the pharmacology researcher and to the large teaching institutions where such testing can be done in a controlled environment.

I do not use samples as a "starter dose" for my patients. I do, however, find samples of drugs to be of value in that they permit me to see what the particular medication looks like. I get to see the various forms of the particular medication at first hand, and if it is in a liquid form I take the time to taste it. In that way I am able to give my patients more complete information about the particular medications that I prescribe for them.

They are indeed useful; especially in the fact that they provide a broadly based educational material and serve not just as "tools" of their drugs.

The Other Side of the Coin

Obviously, the pharmaceutical companies are not producing all material as a labor of love—the business of selling for profit. In this regard, it is obvious and improperly motivated. A sales representative can exert a negative influence on the physician, both by presenting a one-sided picture of his product and by encouraging the physician to depend too heavily on it for his total therapy. In addition, the salesman has often lost sight of objective reality and neglected his potential role as an educator.

Physician Responsibility

The detail man must be a reliable resource as well as a representative of his particular pharmaceutical company, he must be carefully selected and

thoroughly trained. That training, of course, must be an ongoing one. There must be a continuing battle within and with the pharmaceutical industry for high quality not only in the selection and training of its sales representatives, but also in the development of all of its promotional and educational material.

The industry must be ready to accept constructive as well as corrective criticism from experts in the field and consumer spokesmen, and be willing to accept independent peer review. The better educated and prepared the salesman is, the more medically accurate his materials, the better off the pharmaceutical industry, health professionals and the public—i.e., the patients—will be.

Physician Responsibility

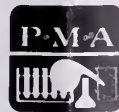
The practicing physician is in constant need of up-dated information on therapeutics, including drugs. He should and does make use of drug information and answers to specific questions supplied by the pharmaceutical representative. However, that informa-

tion must not be his main source of continuing education. The practitioner must keep up with what is current by making use of scientific journals, refresher courses, and information received at scientific meetings.

The practicing physician not only has the right, but has the responsibility to demand that the pharmaceutical company and its representatives supply a high level of valid and useful information. I feel certain that if such a high level is demanded by the physician as well as the public, this demand will be met by an alert and concerned pharmaceutical industry.

From my experience, my impression is that sectors of the pharmaceutical industry are indeed ethical. I challenge the industry as a whole to live up to that word in its finest sense.

*Pharmaceutical
Manufacturers Association
1155 Fifteenth Street, N.W.
Washington, D. C. 20005*





What does man have in common with Samson?

Neither man nor the gorilla can synthesize vitamin C. Interestingly, the slow loris, a primate much further down the evolutionary scale, can convert L-1,4-gulonolactone to ascorbic acid in its liver and presumably does not require an exogenous source of ascorbic acid.

Because man can neither synthesize vitamin C nor store most of the water soluble vitamins, these nutrients must be replenished continuously in order to

maintain normal tissue levels.

Generally, this is accomplished in his diet. But under conditions of illness, stress, in convalescence or following surgery, vitamin stores are depleted or metabolic demands increased.

In such cases, Surbex-T may be indicated. Surbex-T restores the water-soluble vitamins with each tablet providing 500 mg. of vitamin C plus high potency B-complex.

SURBEX-T[®] 500 mg. of Vitamin C with High Potency B-Complex
Restores what the body cannot effectively store

The Bactrim^{T.M.} edge

Each tablet contains 80 mg trimethoprim and 400 mg sulfamethoxazole.

A high assurance of clinical efficacy

- in cystitis, pyelonephritis and pyelitis diagnosed as chronic
- against susceptible strains of the common urinary tract pathogens, usually *E. coli*, *Klebsiella-Enterobacter*, *Proteus mirabilis*, and, less frequently, indole-positive proteus species.



Before prescribing, please consult complete product information, a summary of which follows:

Indications: Chronic urinary tract infections (primarily pyelonephritis, pyelitis and cystitis) due to susceptible organisms (usually *E. coli*, *Klebsiella-Enterobacter*, *Proteus mirabilis*, and, less frequently, indole-positive proteus species).

Caution: The increasing frequency of resistant organisms lessens the usefulness of antibacterials, especially in chronic and recurrent urinary tract infections.

Contraindications: Hypersensitivity to trimethoprim or sulfonamides; pregnancy; nursing mothers.

Warnings: Deaths from hypersensitivity reactions, granulocytosis, aplastic anemia and other blood dyscrasias have been associated with sulfonamides. Experience with trimethoprim is much more limited but occasional interference with hematopoiesis has been reported as well as an increased incidence of thrombocytopenia in elderly patients on diuretics, primarily furosemides. Sore throat, fever, pallor or jaundice may be early signs of serious blood disorders. Frequent CBC's are recommended; therapy should be discontinued if a significantly reduced count of any formed blood element is noted. Data are insufficient to recommend use in infants and children under 12.

Precautions: Use cautiously in patients with impaired renal or hepatic function, possible folate deficiency, asthma or bronchial asthma; and in those with glucose-6-phosphate dehydrogenase deficiency, where hemolysis may occur. During therapy, maintain adequate fluid intake and perform frequent urinalyses, with careful microscopic examination, and renal function tests, particularly where there is impaired renal function.

Adverse Reactions: All major reactions to sulfonamides and trimethoprim are included, even if not reported with Bactrim. *Blood dyscrasias:* Agranulocytosis, aplastic anemia, megaloblastic anemia, thrombocytopenia, leukopenia, hemolytic anemia, purpura, hypoprothrombinemia and methemoglobinemia. *Other reactions:* Erythema multiforme, Stevens-Johnson syndrome, generalized skin eruptions, epidermal necrolysis, urticaria, serum sickness, pruritus,

exfoliative dermatitis, anaphylactoid reactions, periorbital edema, conjunctival and scleral injection, photosensitization, arthralgia and allergic myocarditis. *Gastrointestinal reactions:* Glossitis, stomatitis, nausea, emesis, abdominal pains, hepatitis, diarrhea and pancreatitis. *CNS reactions:* Headache, peripheral neuritis, mental depression, convulsions, ataxia, hallucinations, tinnitus, vertigo, insomnia, apathy, fatigue, muscle weakness and nervousness. *Miscellaneous reactions:* Drug fever, chills, toxic nephrosis with oliguria and anuria, periarteritis nodosa and L.E. phenomenon. Due to certain chemical similarities to some goitrogens, diuretics (acetazolamide, thiazides) and oral hypoglycemic agents, sulfonamides have caused rare instances of goiter production, diuresis and hypoglycemia in patients; cross-sensitivity with these agents may exist. In rats, long-term therapy with sulfonamides has produced thyroid malignancies.

Dosage: Not recommended for children under 12.

Usual adult dosage: Two tablets b.i.d. for 10 to 14 days. For patients with renal impairment:

Creatinine Clearance (ml/min)	Recommended Dosage Regimen
Above 30	Usual standard regimen
15-30	2 tablets every 24 hours
Below 15	Use not recommended

Supplied: Tablets, each containing 80 mg trimethoprim and 400 mg sulfamethoxazole—bottles of 100 and 500; Tel-E-Dose[®] packages of 1000; Prescription Packs of 40, available singly and in trays of 10.



Roche Laboratories
Division of Hoffmann-La Roche Inc.
Nutley, New Jersey 07110

Bactrim^{T.M.}

Each tablet contains 80 mg trimethoprim and 400 mg sulfamethoxazole.



Each tablet contains 80 mg trimethoprim and 400 mg sulfamethoxazole.

A high assurance of antibacterial activity
in cystitis, pyelonephritis and pyelitis diagnosed
as chronic and due to susceptible organisms.

Before prescribing, please consult complete product information,
a summary of which appears on preceding page.



The Journal of The KENTUCKY Medical Association

Vinyl Chloride and Angiosarcoma

J. Bradford Black, M.D.

483

Lymphocutaneous Sporotrichosis in Childhood

Surjeet S. Dhanjal, M.B.B.S., Ashok Kale, M.D., and Joseph Babey, M.D.

486

Arterio-Venous Malformation of the Colon—Case Report

Gustavo E. Hernandez, M.D., Robert E. Durnin, M.D., and
Patrick F. Hagihara, M.D.

488

Blue Cross and Blue Shield—Involved

Henry B. Asman, M.D., B. Frank Radmacher, M.D., and R. Parnell Rollings, M.D.

494

Complete Contents on Page 465

1974 KMA ANNUAL MEETING

September 24-26

Ramada Inn/Bluegrass Convention Center

Louisville

Both after



● Predominant psychoneurotic anxiety

● Associated depressive symptoms

Before prescribing, please consult complete product information, a summary of which follows:

Indications: Tension and anxiety states; somatic complaints which are concomitants of emotional factors; psychoneurotic states manifested by tension, anxiety, apprehension, fatigue, depressive symptoms or agitation; symptomatic relief of acute agitation, tremor, delirium tremens and hallucinosis due to acute alcohol withdrawal; adjunctively in skeletal muscle spasm due to reflex spasm to local pathology, spasticity caused by upper motor

neuron disorders, athetosis, stiff-man syndrome, convulsive disorders (not for sole therapy).

Contraindicated: Known hypersensitivity to the drug. Children under 6 months of age. Acute narrow angle glaucoma; may be used in patients with open angle glaucoma who are receiving appropriate therapy.

Warnings: Not of value in psychotic patients. Caution against hazardous occupations requiring complete mental alertness. When used adjunctively in convulsive dis-

orders, possibility of increase in and/or severity of grand mal seizures may require increased dosage of star convulsant medication; abrupt withdrawal may be associated with temporary increase in frequency and/or severity of seizures. Advise against simultaneous ingestion of alcohol and other CNS depressants. Withdrawal symptoms (such as those with barbiturates and alcohol) occurred following abrupt discontinuation (convulsions, tremor, abdominal cramps, vomiting and sweating) in addiction-prone individuals under

Respond to one

ring to her major
she is a psychoneu-
with severe
according to the
she gives of her
of the problem
like depression.
use her problem,
primarily one of ex-
ety, is often accom-
depressive symptom-
Valium (diazepam)
relief for both—as
the anxiety is re-
depressive symp-
ated with it are also
ed.

re other advan-
g Valium for the
it of psychoneu-
y with secondary
symptoms: the
peutic effect of
ronounced and
means that im-
s usually apparent
it within a few
than in a week or

two, although it may take
longer in some patients. In ad-
dition, Valium (diazepam) is
generally well tolerated; as
with most CNS-acting agents,
caution patients against haz-
ardous occupations requiring
complete mental alertness.

Also, because the psycho-
neurotic patient's symptoms
are often intensified at bed-
time, Valium can offer an addi-
tional benefit. An *h.s.* dose
added to the *b.i.d.* or *t.i.d.*
treatment regimen can relieve
the excessive anxiety and asso-
ciated depressive symptoms
and thus encourage a more
restful night's sleep.

For further information
on this subject, the following
references are provided:

1. Henry BW, *et al*: *Dis Nerv Syst* 30:675-679, Oct 1969.
2. Hollister LE, *et al*: *Arch Gen Psychiatry* 24:273-278, Mar 1971.
3. Claghorn J: *Psychosomatics* 11:438-441, Sept-Oct 1970.

because of their predisposi-
tion and dependence. In
tation or women of child-
veigh potential benefit
ble hazard.

f combined with other psy-
anticonvulsants, consider
macology of agents em-
such as phenothiazines,
biturates, MAO inhibitors
depressants may potentiate
al precautions indicated in
rely depressed, or with latent
r with suicidal tendencies.

Observe usual precautions in impaired
renal or hepatic function. Limit dosage to
smallest effective amount in elderly and
debilitated to preclude ataxia or over-
sedation.

Side Effects: Drowsiness, confusion, diplo-
pia, hypotension, changes in libido, nausea,
fatigue, depression, dysarthria, jaundice,
skin rash, ataxia, constipation, headache,
incontinence, changes in salivation,
slurred speech, tremor, vertigo, urinary
retention, blurred vision. Paradoxical re-
actions such as acute hyperexcited states,
anxiety, hallucinations, increased muscle

spasticity, insomnia, rage, sleep disturb-
ances, stimulation have been reported;
should these occur, discontinue drug. Iso-
lated reports of neutropenia, jaundice;
periodic blood counts and liver function
tests advisable during long-term therapy.



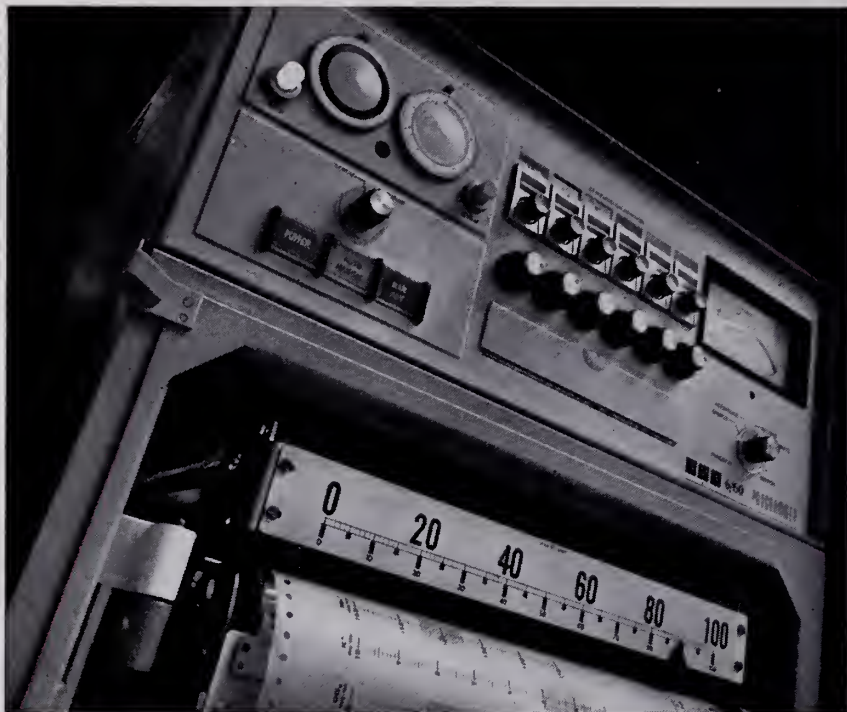
Valium® (diazepam) 2-mg, 5-mg, 10-mg tablets

in psychoneurotic
anxiety states
with associated
depressive symptoms



Roche Laboratories
Division of Hoffmann-La Roche Inc.
Nutley, New Jersey 07110

If you think you have to own the equipment you need for expansion,



you haven't talked to the First leasing men.

Private practice, clinic, medical center... we can plan a leasing "package" for you.

With lease schedules favorable to your specific requirements.

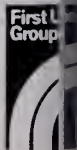
Leasing keeps your credit lines free for other needs. And avoids putting working capital into heavy down payments.

It can be simpler, less costly, with write-offs, than ownership.

Call or write Don Deters, Leasing Director, First National Bank in St. Louis. Find out how you can put our leasing expertise to work. Profitably.

**First National Bank
in St. Louis** Member FDIC

St. Louis, Mo. 63166 • (314) 342-6530



ued Monthly Under the Direction
of the Board of Trustee

EDITOR

Walter I. Hume, Jr., M.D.

ASSOCIATE EDITOR

Henry B. Asman, M.D.

ASSISTANT EDITOR

A. Evan Overstreet, M.D.

EXECUTIVE EDITOR

Robert G. Cox

MANAGING EDITOR

Jerry E. Mahoney

ASSISTANT MANAGING EDITOR

Dianne Lobes

DEPARTMENTAL EDITORS

Charles C. Smith, Jr., M.D., Scientific
John W. Greene, Jr., M.D., Maternal
Mortality

BOARD OF CONSULTANTS
ON SCIENTIFIC ARTICLES

Term Expires July 1, 1977

Lowrence C. Goldberg, M.D.
Carl H. Scatt, M.D.
Richard K. Jelsma, M.D.
James A. Meyers, M.D.
Russell R. Rice, M.D.
William J. Collis, M.D.
Charles E. Dobbs, M.D.
David L. Brawn, M.D.

Term Expires July 1, 1976

Gehrig M. Robinsan, M.D.
Mork S. Sexter, M.D.
Thomos E. Baath, M.D.
Patrick L. Jasper, M.D.
Oscar W. Thampsan, M.D.
Stephen C. Schindler, M.D.
Van R. Jenkins, M.D.
Jahn W. Miller, M.D.

Term Expires July 1, 1975

Robert E. Arnold, M.D.
Robert A. Holl, M.D.
Chrisman S. Jacksan, Jr., M.D.
Lafayette G. Owen, M.D.
Anne Richmon, M.D.
Ruel T. Routt, M.D.
Frank G. Simon, M.D.
Leslie Van Nostrand, M.D.

ublished at 3532 Ephraim McDowell Drive,
Louisville, Ky. 40205
Phone (Area Code 502) 452-6324

bscription \$10 (Members \$5)
ngle Copy \$1

cond-class postage paid at Louisville, Ken-
ky. Acceptance for mailing at special rates
stage provided in Section 1103, act of Oct. 3,
17, authorized May 25, 1920.

Journal of The
K E N T U C K Y
Medical Association

Contents

SCIENTIFIC ARTICLES

Vinyl Chloride and Angiosarcoma
J. Bradford Block, M.D.483

Lymphocutaneous Sporotrichosis in Childhood
*Surjeet S. Dhanjal, M.B.B.S., Ashok Kale,
M.D., and Joseph Babey, M.D.*486

Arterio-Venous Malformation of the Colon-Case Report
*Gustavo E. Hernandez, M.D., Robert E. Durnin,
M.D., and Patrick F. Hagihara, M.D.*488

Childhood and the Prevention of Atherosclerosis
(Medical Progress)
Carol M. Cottrill, M.D.491

SPECIAL ARTICLE

Blue Cross and Blue Shield—Involved
*Henry B. Asman, M.D., B. Frank Radmacher,
M.D., and R. Parnell Rollings, M.D.*494

EDITORIAL

Z-D-T '76498

A Beckon to the Beacons498

ORGANIZATION

1974 KMA Annual Meeting Is At Hand504

1974 U.S. Senate Candidates To Speak At KEMPAC Meeting504

Membership Dues To Be Billed From KMA Headquarters Office504

Miscellaneous Meetings Planned During KMA Annual Session505

Neuro-ophthalmology Course Sponsored by UKMC508

American College of Surgeons To Offer SESAP II508

REGULAR FEATURES

President's Page467

Maternal Mortality468

Postgraduate Opportunities ..512

KENTUCKY MEDICAL ASSOCIATION

BOARD OF TRUSTEES—1973-1974

Officers

President	FRED C. RAINEY 912 Woodland Dr., Elizabethtown 42701 (502) 765-4147 .1974
President-Elect	HOYT D. GARDNER 508 Watterson City Bldg., Louisville 40218 (502) 452-2684 .1974
Immediate Past President	LEE C. HESS 7211 U. S. 42, Florence 41042 (606) 371-1153 .....1974
Vice-President	GABE A. PAYNE 1610 S. Main St., Hopkinsville 42240 (502) 885-8445 ....1974
Secretary	S. RANDOLPH SCHEEN 1163 Medical Arts Bldg., Louisville 40217 (502) 451-1661 .1975
Treasurer	KEITH P. SMITH Medical Arts Bldg., Corbin 40701 (606) 528-3211 .....1975
Speaker, House of Delegates	RICHARD F. GREATHOUSE 5 Triangle Center, Louisville 40220 (502) 458-3219 .....1974
Vice-Speaker	CARL COOPER, JR. Bedford 40006 (502) 255-3282 .....1974
Chairman, Board of Trustees	BALLARD W. CASSADY Pikeville Medical Bldg., Pikeville 41501 (606) 437-6698 ..1974
Vice-Chairman	PAUL J. PARKS 1109 State St., Bowling Green 42101 (502) 781-5111 ....1974

Delegates to the A.M.A.

J. THOS. GIANNINI, Suite 3E, Suburban Medical Plaza, Louisville (502) 897-2555 Jan. 1973-Dec. 1974
CHAS. G. BRYANT, (Alt.) 3357 Medical Arts Bldg., Louisville (502) 452-1558 Jan. 1973-Dec. 1974
JOHN C. QUERTERMOUS, 205 S. 8th St., Murray (502) 753-5161 Jan. 1974-Dec. 1975
WILLIAM W. HALL, (Alt.) Mayfair Square, Owensboro (502) 684-6255 ... Jan. 1974-Dec. 1975
DAVID B. STEVENS, 2101 Nicholasville Rd., Lexington (606) 278-3481 Jan. 1974-Dec. 1975
THOMAS L. HEAVERN, (Alt.) 2435 Alexandria, Highland Hgts. (606) 441-7600 Jan. 1974-Dec. 1975

Trustees

1st	W. EUGENE SLOAN, 2320 Broadway, Paducah 42001 (502) 443-4581 .....1974
2nd	CHARLES C. KISSINGER, Atkinson Park, Henderson 42420 (502) 826-6271 .....1976
3rd	RALPH L. CASH, 210 West Main St., Princeton 42445 (502) 365-2037 .....1974
4th	W. BRUCE HAMILTON, 4th & Buckman, Shepherdsville 40165 (502) 543-6362 ...1974
5th	EDWARD N. MAXWELL, St. Joseph Infirmary, Louisville 40217 (502) 636-7461 ..1975
6th	PAUL J. PARKS, 1109 State St., Bowling Green 42101 (502) 781-5111 .....1975
7th	JOHN P. STEWART, 220 Steele St., Frankfort 40601 (502) 227-4718 .....1976
8th	CARL J. BRUEGGEMANN, 325 W. 19th St., Covington 41014 (606) 291-4768 ..1975
9th	JAMES L. FERRELL, Bourbon Medical Ctr., Paris 40361 (606) 987-2200 .....1976
10th	DAVID A. HULL, 2368 Nicholasville Rd., Lexington 40503 (606) 277-5711 ....1976
11th	R. EUGENE BOWLING, 527 W. Main, Richmond 40475 (606) 623-3754 .....1975
12th	ROBERT N. McLEOD, JR., 500 Bourne Ave., Somerset 42501 (606) 678-8155 ....1974
13th	J. WESLEY JOHNSON, 2301 Lexington Ave., Ashland 41101 (606) 325-1151 ....1976
14th	BALLARD W. CASSADY, Pikeville Med. Bldg., Pikeville 41501 (606) 437-6698 ..1974
15th	HAROLD L. BUSHEY, 406 Knox St., Box 770, Barbourville 40906 (606) 546-3024 1975

BUYERS GUIDE

SEPTEMBER BUYERS GUIDE FOR JOURNAL OF KMA

Abbott Laboratories	474	McNeil Laboratories, Inc.	469
American Cancer Society	514	Medical Protective Company	513
Blue Cross and Blue Shield of Kentucky	470	Merck Sharp & Dohme	476-478
Burroughs Wellcome Company	471	Pharmaceutical Manufacturers Association	502-503
Dorsey Laboratories	475	A. H. Robins Company	515-516
Federal Correctional Institution	508	Roche Laboratories	462-463, 472-473, 506-507, 510-511, 519-520
First National Bank in St. Louis	464	J. B. Roerig & Company	480-481
Flint Laboratories	499	John E. Ryan	509
General Leasing Corporation	480	G. D. Searle & Company	500-501
Kentucky Peer Review Organization, Inc.	517-518	Southern Optical Company	513
Kentucky Thoracic Society	479	Tennessee Valley Medical Assembly	497
Eli Lilly & Company	482		



MESSAGE FROM THE PRESIDENT

Medicaid—Time To Fish or Cut Bait?

All people deserve to have quality medical care regardless of ability to pay. Traditionally, physicians have treated all people, charging those financially able to pay, reducing fees for those less able to pay, and providing the same quality of care for those not able to pay anything. This system of care existed since the beginning of medicine.

Government then decided it wanted to be involved in medicine, and indeed it is! Along came Medicaid, a program supposedly designed to pay the cost of medical care for those people who were medically indigent. But as it seems to happen with most government health programs, more was promised than has been delivered and costs were underestimated. Since the beginning of the Medicaid program on July 1, 1966, a majority of Kentucky physicians have participated in the program in spite of red tape, confusion, low fees, and many broken promises. Year after year officers of KMA and our Title 19 Technical Advisory Committee have exerted efforts to improve the program. All such efforts, for all practical purposes, have failed.

Consider these facts: 1) Physicians' fee profiles have *never* been updated. 2) Recommendations to convert to the Usual, Customary and Reasonable Fee System have been ignored. 3) Fees of other providers have been increased several times. 4) Because of the grossly inequitable fee schedule, more and more physicians are ignoring the program, increasing the burden of those who continue to participate. 5) More recipients are being added to the program (some 65,000 to 75,000 were added July 1, 1974). 6) We are promised improvements every year, but in six years, few have been made. 7) Surgeons have never been paid surgical fees for surgery. 8) Obstetrical services are grossly under-funded. 9) Inpatient services of other types have never been respectably compensated. 10) The program has operated for years under a double standard requiring private practitioners to operate under a standard of physician-patient contact before the program can be billed for services rendered, but allowing mental health centers to bill the program for services rendered by psychiatrists, psychologists, social workers and/or nurses. 11) Community mental health centers are paid a fee which is more than double the average fee paid to private physicians. And lastly, by state statistics, Kentucky physicians have subsidized the Medicaid program to the tune of 10 to 13 million dollars per year.

Active efforts have been made this year to improve the program and these efforts are continuing at the time this article is being sent to press. We have encountered some opposition within the structure of government but we have also found that the Governor is keenly interested in the welfare of the people. I am hopeful that, for the first time in Medicaid history, we will be able to secure an acceptable program.

Kentucky physicians have been patient and tolerant. Medically indigent people will continue to receive quality care regardless of Medicaid. But I would submit to you that it is now time for state government to "fish or cut bait." Either adequately fund the program and give it priority it deserves or forget it.

I would say to every member of this Association that the past year has undoubtedly been the highlight of my life as far as KMA is concerned. I appreciate the confidence you placed in me. As I look forward to the end of my year as President of KMA, I pledge my continuing desire to be of service to our profession, this Association, and to this Commonwealth. My only regret is that I have not been able to devote full time to this very demanding position.

FRED C. RAINEY, M.D.



MATERNAL MORTALITY



From the Files of the KMA Maternal Mortality Study Committee

—Edited by John W. Greene, Jr., M.D.

THIS 36-year-old white, Gravida 4, Para 3 had no prenatal care with this pregnancy. She was admitted at 12.50 p.m., October 23, 1971, in labor.

She was having contractions every five minutes. Her blood pressure at 1:00 p.m. was 210/110. Vaginal exam revealed the cervix 4 cm dilated with the presenting part described high. Membranes ruptured spontaneously at 2:30 p.m.; the cervix was 6 cm dilated. She complained of back pain. Blood pressure was 200/130. She received 50 mg Demerol, 25 mg Phenergan when she was 8 cm dilated at 4:45 p.m. Her blood pressure was 210/140. Only a rim of cervix was found at 5:45 p.m. A 7 lb, 1-1/2 oz male was delivered at 6:15 p.m. under anesthesia. The placenta was expressed spontaneously at 6:19 p.m. She received 0.2 mg methergin IV. Blood pressure was 214/120 at 6:30 a.m. when she returned from the delivery room. It remained elevated at 218/114 and she received 60 mg phenobarbital at 11:45 p.m. and at 12:10 a.m. This was repeated IM after she vomited a large amount of undigested food. She began complaining of severe pain below the ribs and received 75 mg Demerol with 25 mg Phenergan. She didn't obtain any relief from this medication and vomited again. Her physician saw her at 2:45 a.m.; her pulse was normal, blood pressure was 250/140. The pain eased around 4:30 a.m. She voided 200 cc at 8:30 a.m. The only urinalysis on the 24th

revealed 4+ alb, 2+ acetone neg sugar, 3-4 WBC, oeo RBC. Her arms and hands became very cyanotic around 10:00 a.m. Nasal oxygen was started, and she was given 2.5 mg Serpasil, IM. An IV of 1000 cc 10% glucose water was started. She was given 20 mg of Lasix IM. Hb was 14.5, hematocrit 46%. From the nurse's notes, she had 1000 cc very concentrated urine by the catheter. She was only slightly responsive to painful stimuli the evening of the 24th. Her BP was 122/100 and the pulse became more rapid (100) as did her respiration (50/min). Her BUN was 64 mg%. She was suctioned frequently; her BP was 80/? the 25th. She had some small seizures and expired at 6:25 p.m. on October 25, 1971. An autopsy was requested but not performed since the family failed to grant the permission. The cause of death was listed as: (1) pregnancy term delivered, (2) hypertension.

Comment

The committee classified this as a direct obstetrical death with preventable factors. The committee felt much of the responsibility rested with the patient. She was a multipara and had no prenatal care. Had there been an autopsy, more could have been determined. The committee felt the hypertension should have been more aggressively managed. This could have possibly prevented the cause of death, most likely a cerebral hemorrhage.

The Rx that says "Relax"

BUTISOL Sodium provides highly predictable sedative effect: minor dosage adjustments are usually all that's needed to produce the desired degree of sedation. (With 3 dosage forms and 4 strengths to make adjustments easy.)

BUTISOL Sodium offers prompt, smooth, relatively non-cumulative action: begins to work within 30 minutes...yet, because of its intermediate rate of metabolism, generally has neither a "roller-coaster" nor a "hangover" effect.

BUTISOL Sodium is remarkably well tolerated: a 30-year safety record assures you that there is little likelihood of unexpected reactions.

BUTISOL Sodium saves your patients money: costs less than half as much as most commonly prescribed sedative tranquilizers.*

These are four good reasons for prescribing BUTISOL Sodium for the many patients who need to have the pace set just a little slower. Its gentle daytime sedative action is often all that's needed to help the usually well-adjusted patient cope with temporary stress.

*Based on surveys of average daily prescription costs.

Butisol  **SODIUM**
(SODIUM BUTABARBITAL)

Contraindications: Sensitivity or idiosyncrasy to barbiturates; history of manifest or latent porphyria or marked liver impairment; respiratory disease with dyspnea or obstruction; history of addiction to sedative/hypnotic drugs; uncontrolled pain, to avoid because of possible excitement.

Precautions: Exercise caution in: moderate to severe hepatic disease; anticoagulant therapy, because of possible increased metabolism of coumarin anticoagulants; withdrawal in drug dependence or the taking of excessive doses over a long period, to avoid withdrawal symptoms; elderly or debilitated patients, to avoid possible marked excitement or depression; use with alcohol or other CNS depressants, because of combined effects.

Adverse Reactions: Slight hangover, drowsiness, lethargy, headache, skin eruptions, nausea and vomiting, hypersensitivity reactions (especially in those with asthma, urticaria, angioneurotic edema, or similar conditions).

Usual Adult Dosage: For daytime sedation, 15 mg. to 30 mg. t.i.d. or q.i.d. For hypnosis, 50 mg. to 100 mg.

Available as: Tablets, 15 mg., 30 mg., 50 mg., 100 mg.; Elixir, 30 mg. per 5 cc. (alcohol 7%). BUTICAPS® [Capsules BUTISOL SODIUM (sodium butabarbital)] 15 mg., 30 mg., 50 mg., 100 mg.

NEIL

Laboratories, Inc., Fort Washington, Pa. 19034

© McN 1971

Assistance when you need it.

These specially trained Professional Relations Representatives pictured below are available to assist whenever you or one of your staff needs information regarding claims handling, payments, benefits or any other point concerning Voluntary Prepayment.

Protection.

You are invited to use this special service. FOR ASSISTANCE, WRITE OR CALL the office located in your area.

LOUISVILLE AREA



Tom North



Lynn Latta

**Blue Cross
Blue Shield
Delta Dental
of Kentucky**

Helping Kentuckians Prepay The Cost of Health Care



Tony Olinger



Jim Sparrow

COVINGTON AREA



J. Hartlage

533 Pike Street
Covington, 41021
Phone (606) 291-1158

LEXINGTON AREA



Fred Compton



Jim Bingham

570 East Main Street
Lexington, 40508
Phone (606) 255-2437

OWENSBORO AREA



Bob Proffitt

909 Allen Street
Owensboro, 42302
Phone (502) 683-2459



ASHLAND AREA



Willard Chapman

710 2nd Nat'l Bank Bldg.
Ashland, 41101
Phone (606) 325-4114

PADUCAH AREA



Ron Hopper

1301 Broadway
Paducah, 42001
Phone (502) 443-6515

BOWLING GREEN AREA



Don Chasteen

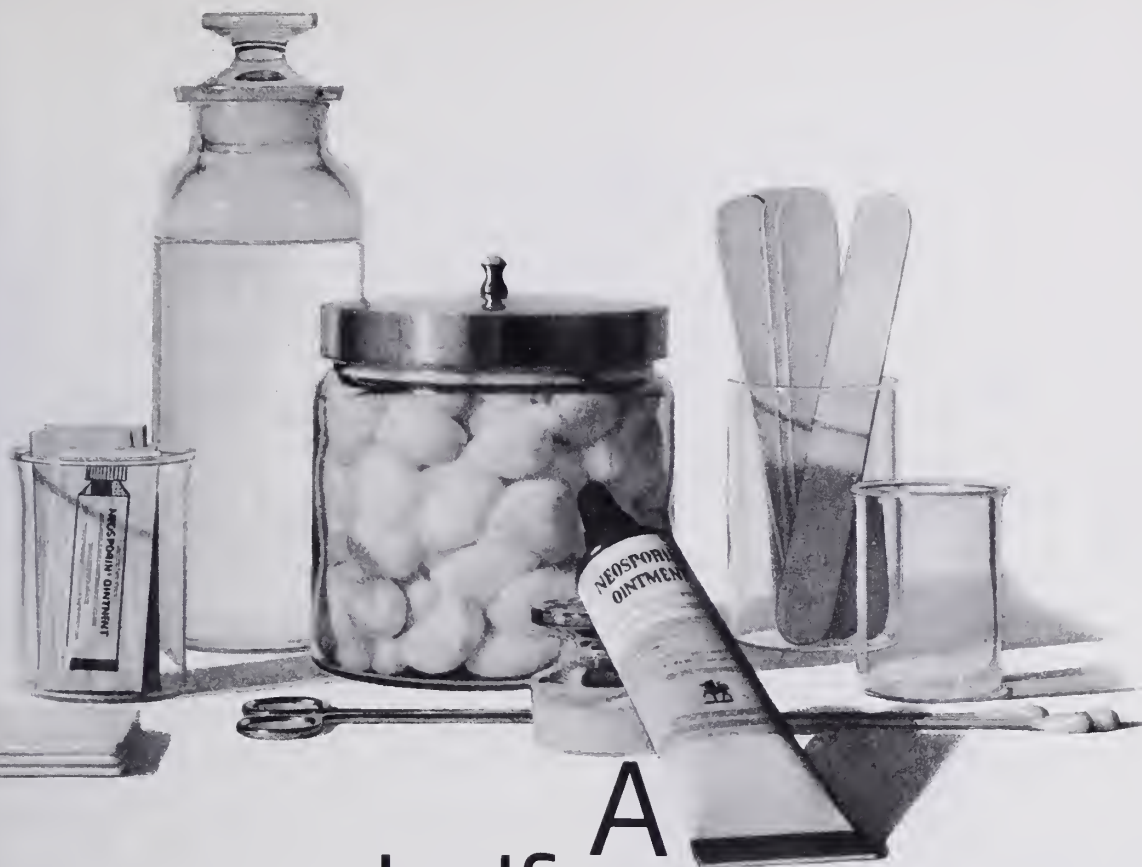
1039 College Street
Bowling Green, 42101
Phone (502) 842-4234

SOMERSET AREA



Mel Brooks

430 Ogden Street
Somerset, 42501
Phone (606) 679-2603



A half-ounce of prevention

Use it to prevent a topical infection. Or to treat one that's already started.

In either case, it's good medicine. Whether for lacerations, burns, open wounds, IV catheter or surgical aftercare.

Neosporin® Ointment provides broad antibacterial coverage against common susceptible pathogens. And since it contains three antibiotics that are rarely used systemically, the risk of sensitization is reduced.

Neosporin Ointment. A half-ounce of prevention. Also available in a full ounce of prevention and in convenient foil packets.

Neosporin Ointment carried on Apollo and Skylab missions.

Neosporin® Ointment (polymyxin B-bacitracin-neomycin)

Each gram contains: Aerosporin® brand Polymyxin B Sulfate 5,000 units; zinc bacitracin 400 units; neomycin sulfate 5 mg (equivalent to 3.5 mg neomycin base); special white petrolatum qs.
In tubes of 1 oz and 1/2 oz and 1/32 oz (approx.) foil packets.

Therapeutically, used as an adjunct to appropriate systemic or topical infections, primary or secondary, due to susceptible organisms: infected burns, skin grafts, surgical incisions, otitis externa, impetigo, ecthyma, sycosis vulgaris, paronychia) • secondarily, the ointment may be used to prevent bacterial contamination of surgical incisions, inflamed or suppurating as a result of bacterial infection. • secondarily, the ointment may be used to prevent bacterial contamination of skin grafts, incisions, and other clean lesions. For abrasions, minor cuts or lacerations, its use may prevent the development of infection.

CONTRAINDICATIONS: Not for use in the eyes or external ear canal if the eardrum is perforated. This product is contraindicated in those individuals who have known hypersensitivity to any of the components.

PRECAUTIONS: Because of the potential hazard of nephrotoxicity and ototoxicity associated with neomycin, care should be exercised when using this product in treating patients with renal impairment, trophic ulceration and other extensive conditions where

absorption of neomycin is possible. In burns where more than 20 percent of the body surface is affected, especially if the patient has impaired renal function or is receiving other aminoglycoside antibiotics concurrently, not more than one application a day is recommended.

PRECAUTIONS: As with other antibacterial preparations, prolonged use may result in overgrowth of nonsusceptible organisms, including fungi. Appropriate measures should be taken if this occurs.

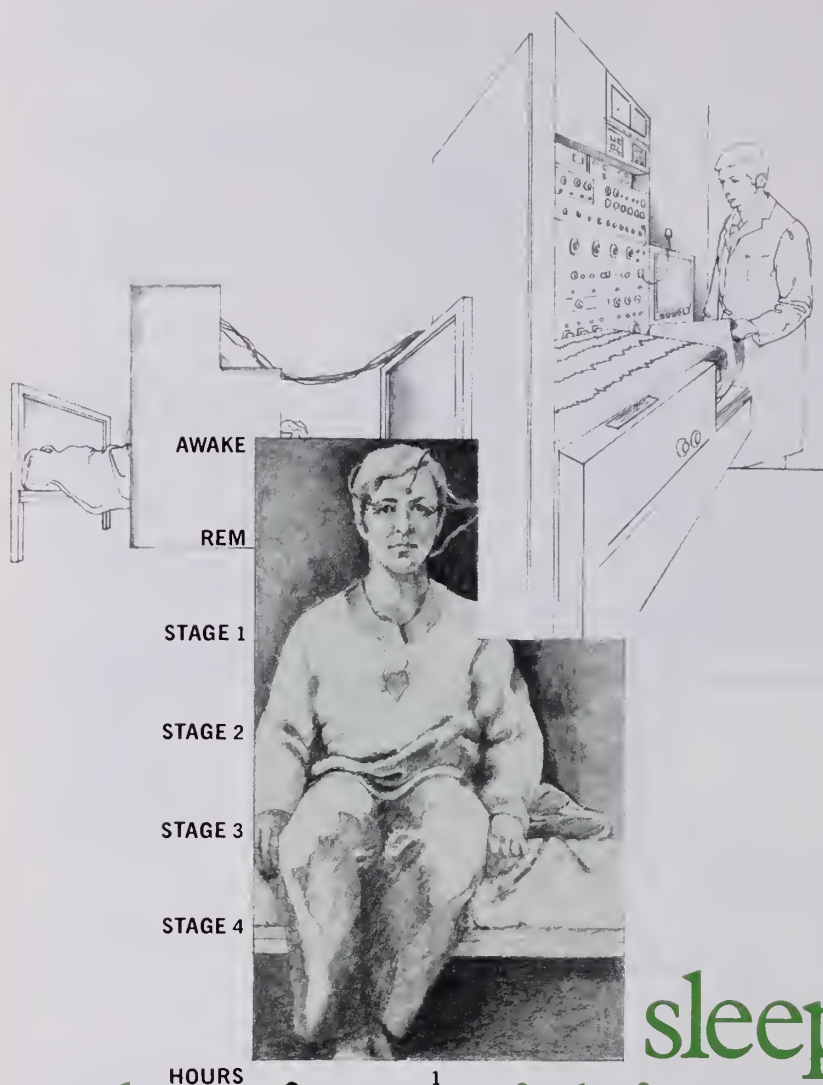
ADVERSE REACTIONS: Neomycin is a not uncommon cutaneous sensitizer. Articles in the current literature indicate an increase in the prevalence of persons allergic to neomycin. Ototoxicity and nephrotoxicity have been reported (see Warning section).

Complete literature available on request from Professional Services Dept. PML.



Wellcome

Burroughs Wellcome Co.
Research Triangle Park
North Carolina 27709

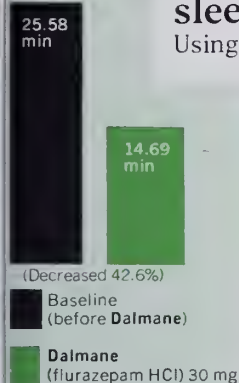


sleep
begins within
17 minutes, on average ...
an initial benefit of

Dalmane[®]
(flurazepam HCl) proved by a
**22-night clinical study of insomnia patients
in the sleep research laboratory and at home¹**

Three insomnia patients selected for difficulty falling asleep were administered Dalmane (flurazepam HCl) 30 mg for 14 consecutive nights. Placebo was given for four nights prior to and four nights after Dalmane. Physiologic tracings on Dalmane nights 1-3 showed sleep induction time averaged 13.90 minutes; on Dalmane nights 12-14, 18.80 minutes. Combined average for the 6 monitored drug nights was 16.35 minutes.¹

Time Required
Asleep (4 Studies,
Subjects²⁻⁵)



confirmed by clinical studies in four geographically separated sleep research laboratories²⁻⁵

Using a 14-night protocol involving eight insomniac and eight normal subjects, four studies confirmed the sleep-inducing effectiveness of Dalmane (flurazepam HCl) and the reproducibility of this response. On average, one 30-mg capsule induced sleep within 17 minutes. In all these studies, Dalmane induced sleep rapidly, reduced nighttime awakenings, and provided 7 to 8 hours of sleep without repeating dosage²⁻⁵

Dalmane (flurazepam HCl) induces and maintains sleep, with relative safety

ne is generally well tolerated; morning "hang-over" has been relatively infrequent. While dizziness, drowsiness, lightheadedness and the like have been reported most often, particularly in the elderly and debilitated, physicians should be aware of the possibility of more serious reactions, as noted below.

When prescribing Dalmane (flurazepam HCl), please consult Complete Product Information, of which follows:

Indications: Effective in all types of insomnia characterized by difficulty in falling asleep, excessive nocturnal awakenings and/or early morning awakening; in patients with recurring insomnia or poor sleeping habits; and in acute or chronic medical situations requiring restful sleep. If insomnia is often transient and intermittent, prolonged administration is generally unnecessary or recommended.

Contraindications: Known hypersensitivity to flurazepam HCl.

Warnings: Caution patients about possible combined effects with alcohol and other CNS depressants. Caution against hazardous occupations requiring complete mental alertness (operating machinery, driving). Use in women who are or may become pregnant only when potential benefits have been weighed against possible hazards. Not recommended for use in children under 15 years of age. Though physical and psychological dependence have not been demonstrated on recommended doses, use caution in administering to alcohol-prone individuals or those who might increase dosage.

Precautions: In elderly and debilitated, initial dosage should be reduced to 15 mg to preclude oversedation, dizziness and/or ataxia. Caution when combined with other drugs having hypnotic or CNS-depressant effects. Consider potential additive effects. Employ usual precautions in patients who are severely depressed, or with latent depression or depressive tendencies. Periodic blood counts and liver and kidney function tests are advised during repeated therapy. Observe usual precautions in presence of impaired renal or hepatic function.

Reactions: Dizziness, drowsiness, lightheadedness, ataxia, and falling have occurred, particularly in elderly debilitated patients. Severe sedation, lethargy, disorientation and ataxia are probably indicative of drug intolerance or overdosage, have been reported. Also reported were headache, heartburn, upset stomach, nausea, vomiting, diarrhea, constipation, GI pain, nervousness, irritability, weakness, palpitations, tremors, body and joint pains and GU complaints. There have been rare occurrences of sweating, flushes, difficulty in focusing, blurred vision, burning eyes, faintness, hypotension, shortness of breath, pruritus, skin rash, dry mouth, bitter taste, excessive salivation, euphoria, depression, slurred speech, confusion, hallucinations, and elevated SGOT, SGPT, total and conjugated bilirubins and alkaline phosphatase. Paradoxical reactions, including excitement, stimulation and hyperactivity, have also been reported in rare instances.

Dosage: Individualize for maximum beneficial effect. *Adults:* 30 mg initially; 15 mg may suffice in some patients. *Elderly or debilitated patients:* 15 mg initially until response is determined.

Formulation: Capsules containing 15 mg or 30 mg flurazepam HCl.

References: 1. Kales A, et al: *Arch Gen Psychiatry* 23:226-232, Sep 1970

2. Can L, Williams RL, Smith JR: The sleep laboratory in the investigation of sleep and sleep disturbances. Scientific exhibit at the 124th annual meeting of the American Psychiatric Association, Washington DC, May 3-7, 1971

3. JD Jr: Data on file, Medical Department, Hoffmann-La Roche Inc, Nutley NJ

4. GW: Data on file, Medical Department, Hoffmann-La Roche Inc, Nutley NJ

5. WC: Data on file, Medical Department, Hoffmann-La Roche Inc, Nutley NJ

when restful sleep
is indicated

Dalmane[®] (flurazepam HCl)

One 30-mg capsule h.s. — usual adult dosage
(15 mg may suffice in some patients).

One 15-mg capsule h.s. — initial dosage for
elderly or debilitated patients.

- induces sleep within 17 minutes, on average
- reduces nighttime awakenings
- sustains sleep 7 to 8 hours, on average, without repeating dosage



ROCHE LABORATORIES
Division of Hoffmann-La Roche Inc.
Nutley, New Jersey 07110



What does man have in common with Samson?

Neither man nor the gorilla can synthesize vitamin C. Interestingly, the slow loris, a primate much further down the evolutionary scale, can convert L-1,4-gulonolactone to ascorbic acid in its liver and presumably does not require an exogenous source of ascorbic acid.

Because man can neither synthesize vitamin C nor store most of the water soluble vitamins, these nutrients must be replenished continuously in order to

maintain normal tissue levels.

Generally, this is accomplished in his daily life. But under conditions of illness, stress, in convalescence or following surgery, vitamin stores may be depleted or metabolic demands increased.

In such cases, Surbex-T may be indicated. Surbex-T restores the water-soluble vitamins with each tablet providing 500 mg. of vitamin C plus high potency B-complex.

SURBEX-T[®] 500 mg. of Vitamin C with High Potency B-Complex

Restores what the body cannot effectively store





When a cough spoils your patient's day...

Triaminic® Expectorant

Each teaspoonful (5 ml.) contains:

Triaminic, 25 mg. (phenylpropanolamine hydrochloride, 12.5 mg.; pheniramine maleate, 6.25 mg.; pyrilamine maleate, 6.25 mg.); glyceryl guaiacolate, 100 mg.; alcohol, 5%.

Available in 8-oz. Family Size and 4-oz.

No Rx needed—recommend over the phone.

**The Adult Expectorant
that is great for kids, too.**

The more physicians consider the hemodynamics lowering blood pressure.

Most physicians now agree on the importance of reducing blood pressure in the hypertensive patient. But high blood pressure exists, of course, only as part of a complete clinical picture. The hemodynamic profile of well-established essential hypertension is characterized by elevated arterial blood pressure, normal cardiac output, and increased total peripheral resistance.

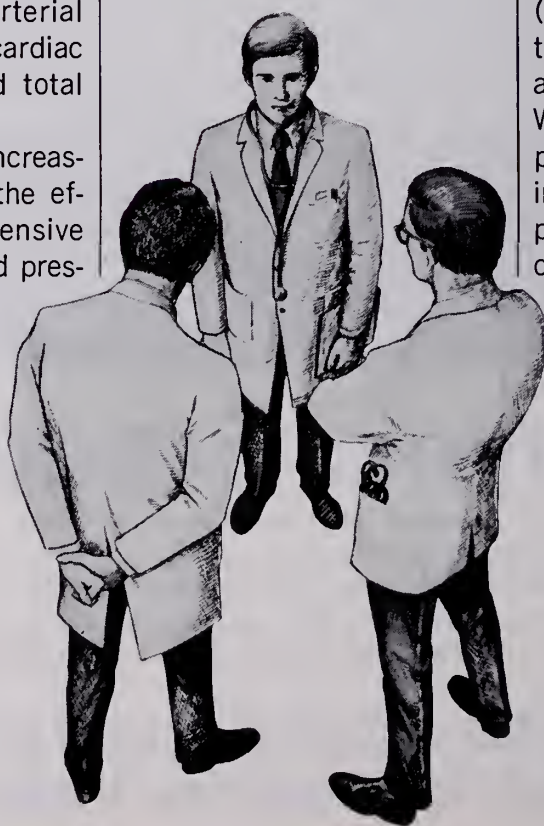
And so, physicians are increasingly concerned with the effects of an antihypertensive agent not only on blood pres-

sure itself but also on the hemodynamic pattern—in short, with the total effect of the drug. *Does it indeed help lower blood pressure effectively? Is peripheral resistance reduced? Are cardiac output and renal functions main-*

tained? And, also, is it likely to be drug-induced natural hypotension sufficient enough to pose a threat to the patient's cerebrovascular status?

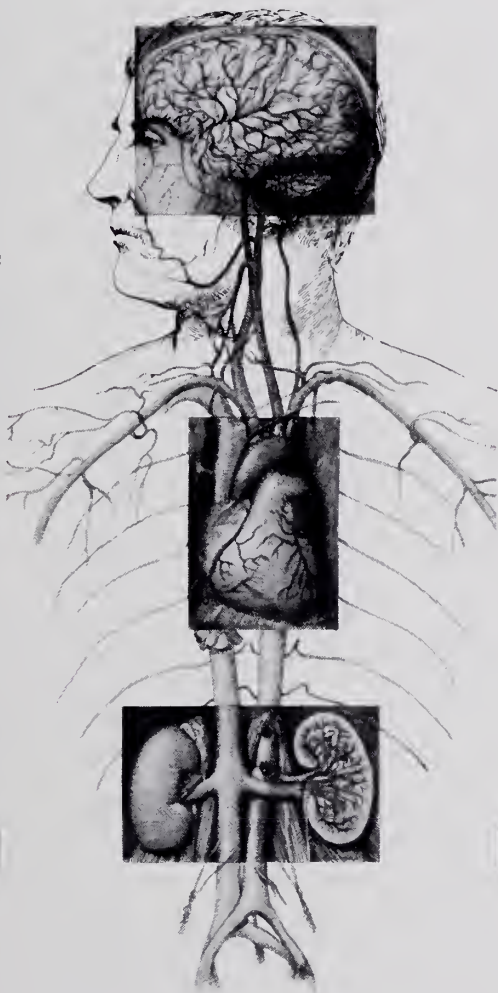
With this emphasis on drug performance has grown reliance on ALDOMET (Methyldopa, MSD) in the treatment of sustained arterial hypertension.

With its unique hemodynamic profile, ALDOMET has received increasing attention and approval from physicians of course, for its effi-



the more physicians rely on this unique antihypertensive

blood pressure. But other considerations. Cardiac output is usually maintained with no cardiac action; in some patients heart rate is actually increased. Peripheral resistance is apparently reduced. ALDOMET does not usually increase existing renal function; it generally does not decrease renal blood flow, glomerular filtration rate, or fluid retention. And ALDOMET does not cause symptoms of postural or exercise hypotension.



Contraindications include active hepatic disease and known sensitivity to the drug. Use with caution in patients with a history of liver disease or dysfunction. Not recommended in pheochromocytoma or pregnancy. It is important to recognize that a positive Coombs test, hemolytic anemia, and liver disorders may occur with methyldopa therapy. The rare occurrences of hemolytic anemia or liver disorders could lead to potentially fatal complications unless properly recognized and managed. For more details see the brief summary of prescribing information.

In most cases of sustained moderate hypertension

TABLETS, 250 mg and 500 mg

ALDOMET[®]

(METHYLDOPA | MSD)

smoothly lowers blood pressure

For summary of prescribing information, see following page.

NEW
now available in
500 mg TABLETS
as well as the standard
250-mg tablets

In most cases of
sustained moderate hypertension

ALDOMET® (METHYLDOPA MSD)

smoothly lowers blood pressure

Contraindications: Active hepatic disease, such as acute hepatitis and active cirrhosis. Known sensitivity. Not recommended in pheochromocytoma. Unsuitable in mild or labile hypertension responsive to mild sedation or thiazide therapy. Use cautiously in patients with history of previous liver disease or dysfunction.

Warnings: It is important to recognize that a positive Coombs test, hemolytic anemia, and liver disorders may occur with methyldopa therapy. The rare occurrences of hemolytic anemia or liver disorders could lead to potentially fatal complications unless properly recognized and managed. Read this section carefully to understand these reactions.

With prolonged methyldopa therapy, 10% to 20% of patients develop a positive direct Coombs test, usually between six and twelve months of therapy. Lowest incidence is at daily dosage of 1 g or less. This on rare occasions may be associated with hemolytic anemia, which could lead to potentially fatal complications. One cannot predict which patients with a positive direct Coombs test may develop hemolytic anemia. Prior existence or development of a positive direct Coombs test is not in itself a contraindication to use of methyldopa. If a positive Coombs test develops during methyldopa therapy, determine whether hemolytic anemia exists and whether the positive Coombs test may be a problem. For example, in addition to a positive direct Coombs test there is less often a positive indirect Coombs test which may interfere with cross matching of blood.

At the start of methyldopa therapy, it is desirable to do a blood count (hematocrit, hemoglobin, or red cell count) for a baseline or to establish whether there is anemia. Periodic blood counts should be done during therapy to detect hemolytic anemia. It may be useful to do a direct Coombs test before therapy and at six and twelve months after the start of therapy. If Coombs-positive hemolytic anemia occurs, the cause may be methyldopa and the drug should be discontinued. Usually the anemia remits promptly. If not, corticosteroids may be given and other causes of anemia should be considered. If the hemolytic anemia is related to methyldopa, the drug should not be reinstituted. When methyldopa causes Coombs positivity alone or with hemolytic anemia, the red cell is usually coated with gamma globulin of the IgG (gamma G) class only. The positive Coombs test may not revert to normal until weeks to months after methyldopa is stopped.

Should the need for transfusion arise in a patient receiving methyldopa, both a direct and an indirect Coombs test should be performed on his blood. In the absence of hemolytic anemia, usually only the direct Coombs test will be positive. A positive direct Coombs test alone will not interfere with typing or cross matching. If the indirect Coombs test is also positive, problems may arise in the major cross match and the assistance of a hematologist or transfusion expert will be needed.

Fever has occurred within first three weeks of therapy, sometimes with eosinophilia or abnormalities in liver function tests, such as serum alkaline phosphatase, serum transaminases (SGOT, SGPT), bilirubin, cephalin cholesterol flocculation, prothrombin time, and bromsulphalein retention. Jaundice, with or without fever, may occur, with onset usually in the first two to three months of therapy. Rarely fatal hepatic necrosis has been reported. These hepatic changes may represent hypersensitivity reactions; periodic determination of hepatic function should be done particularly during the first six to twelve weeks of therapy or

whenever an unexplained fever occurs. If fever, abnormalities in liver function tests, or jaundice appear, stop therapy with methyldopa. If caused by methyldopa, the temperature and abnormalities in liver function characteristically have reverted to normal when the drug was discontinued. Methyldopa should not be reinstituted in such patients.

Rarely, reversible reduction in leukocyte count with primary effect on granulocytes has been seen. Reversible thrombocytopenia has occurred rarely. When used with other antihypertensive drugs, potentiation of antihypertensive effect may occur.

Use in Pregnancy and Childbearing Age—Not recommended in pregnancy. In women of childbearing age, weigh potential benefits against possible fetal hazards.

Precautions: Methyldopa may interfere with measurement of: uric acid by the phosphotungstate method, creatinine by the alkaline picrate method, and SGOT by colorimetric methods. Since methyldopa causes fluorescence in urine samples at the same wavelengths as catecholamines, spuriously high levels of urinary catecholamines may be reported. This will interfere with the diagnosis of pheochromocytoma. Stop drug if involuntary choreoathetotic movements occur in patients with severe bilateral cerebrovascular disease. Patients may require reduced doses of anesthetics; hypotension occurring during anesthesia usually can be controlled with vasopressors. Hypertension has occurred after dialysis in patients on methyldopa because the drug is removed by this procedure.

Adverse Reactions: Sedation, usually transient, may be seen during initial therapy or when dosage is increased. Headache, asthenia, or weakness may be noted as early, transient symptoms. Symptoms associated with effective lowering of blood pressure are occasionally seen and include dizziness, lightheadedness, and symptoms of cerebrovascular insufficiency. Angina pectoris may be aggravated. Symptoms of orthostatic hypotension may occur; if symptoms occur, reduction of dosage is suggested. Bradycardia, nasal stuffiness, mild dryness of mouth, and gastrointestinal symptoms including distention, constipation, flatus, and diarrhea occur occasionally; these generally can be relieved by reducing dosage. Nausea and vomiting have been reported in only a few patients. Sore tongue or "black tongue," pancreatitis, and inflammation of salivary glands may occur.

Weight gain and edema occur infrequently and are relieved by administering a thiazide diuretic; if edema progresses or signs of pulmonary congestion appear, discontinue drug. A rise in BUN has been observed. Other rare reactions include breast enlargement, lactation, impotence, decreased libido, skin rash, mild arthralgia, myalgia, paresthesias, Bell's palsy, parkinsonism, psychic disturbances including nightmares, reversible mild psychoses or depression. Urine exposed to air after voiding may darken because of breakdown of methyldopa or its metabolites.

Note: Dosage should be limited initially to 500 mg daily when following previous antihypertensive agents other than thiazides. Maximal recommended daily dose is 3.0 g. Patients with impaired renal function may respond to smaller doses than patients with normal kidney function. Syncope in older patients has been related to increased sensitivity in those with advanced arteriosclerotic vascular disease; this may be avoided by lower doses. Tolerance occasionally seen either early or late, but more likely between second and third month after initiation of therapy; increased dosage or combined therapy with a thiazide frequently restores effective control.

How Supplied: Tablets, containing 250 mg methyldopa each, in single-unit packages of 100 and bottles of 100 and 1000; Tablets, containing 500 mg methyldopa each, in single-unit packages of 100 and bottles of 100.

For more detailed information, consult your MSD representative or see full prescribing information. Merck Sharp & Dohme, Division of Merck & Co., Inc., West Point, Pa. 19486

"Required Reading" For Your Hypertensive Patients



Because of the importance patient motivation, Merck Sharp & Dohme offers "High Blood Pressure," a concise pocket-sized booklet that defines the patient's own role in the management of hypertension. This booklet is available for you to give to your patients. It is designed to reinforce your explanation of hypertension and it emphasizes the importance of patient understanding in adhering to the regimen you prescribe.

Please ask your Merck Sharp & Dohme Professional Representative or write Professional Service Department, West Point, Pa. 19486 for a supply of this booklet.



You are cordially invited to attend the
KENTUCKY THORACIC SOCIETY
1974 FALL CONFERENCE



on

"Control and Management of Pulmonary Infectious Diseases"

OCTOBER 4-5

Holiday Inn East, I-64 and Hurstbourne Lane — Louisville, Kentucky

FRIDAY, OCTOBER 4

SCIENTIFIC SESSION I

Moderator

Mary Theresa Simms, R.N.

- 1:00 p.m. "Significant Determinants in Acquisition of and Response to Pulmonary Infections"
*James Smith, M.D., Associate Professor
Section of Infectious Disease
University of Texas Medical School
Dallas
- 1:45 p.m. "Lower Respiratory Tract Infection Rate in Critical Care Units" (Louisville General Hospital 4/73-4/74)
Viki McClary, Respiratory Therapy Student
Jefferson Community College, Louisville
- 2:05 p.m. "Nosocomial Respiratory Infections in the Burn Patient"
Nancy Whitlow and Peggy Doerting
Respiratory Therapy Students
Jefferson Community College
Louisville
- 2:25 p.m. "Contamination of Respiratory Therapy Equipment"
John C. Harrison, C.R.T.T.
Methodist Evangelical Hospital
Louisville
- 2:45 p.m. "Prevention of Bronchopulmonary Infection in Intubated Patients"
Aelia Atwood, R.N.
Joe R. Utley, M.D., Chairman, Cardio-Thoracic Surgery
University of Kentucky Medical Center
Marcus L. Dillon, M.D.
Veterans Administration Hospital
Lexington
- 3:30 p.m. "Infection Versus Home Therapy in COPD"
Betty L. Keeling, R.N.
Visiting Nurse Association, Louisville
- 3:50 p.m. "First Year's Experience with TB in a New Acute Care V. A. Hospital"
David Nicholson, M.D. and Jack Coyer, M.D.
Department of Medicine
University of Kentucky Medical Center
Lexington
- 4:10 p.m. General Discussion

ADDITIONAL OCTOBER 4 FUNCTIONS

- 4:30 p.m. Business Meeting of Membership
- 6:00 p.m. Social Hour
- 7:00 p.m. Kentucky Thoracic Society Dinner
Speaker: Harry M. Caudill
Author, Attorney and Counselor at Law
Whitesburg

*L. E. Smith Lecturer

NOTE: All health professionals are invited to both sessions. Scientific Session I is primarily for paramedical personnel. Scientific Session II is primarily for physicians.

SATURDAY, OCTOBER 5

SCIENTIFIC SESSION II

Moderator

*Emery E. Lane, M.D., Chairman
Respiratory & Environmental Medicine
Department
University of Louisville School of Medicine*

- 8:30 a.m. "Nosocomial Respiratory Tract Infection"
Yen-Jen Fuh, M.D., Robert Noble, M.D.,
Robert Penman, M.D.
Pulmonary Division
University of Kentucky Medical Center
Lexington
- 8:50 a.m. "Pulmonary Infections in Patients with Aspiration Pneumonitis"
J. Antonio Aldrete, M.D., M.S. and
Donald J. Carrow, M.D.
Department of Anesthesiology
University of Louisville School of Medicine, Louisville
- 9:10 a.m. "Use of the Flexible Fiberoptic Bronchoscope in the Diagnosis of Pulmonary Infection"
Robert W. Powell, M.D.
Section of Respiratory and Environmental Medicine
University of Louisville School of Medicine, Louisville
- 9:30 a.m. "Effects of Lipase-Producing Organisms on Surfactant"
Guy Wilcox, M.D., Resident, Internal Medicine
University of Louisville School of Medicine, Louisville
- 9:50 a.m. "A New Approach to the Mycosis in Kentucky"
E. W. Chick, M.D., N. F. Goodman, Ph.D., D. S. Bauman, Ph.D., and P. A. Pichardo, M.D.
Division of Mycologic Diseases
University of Kentucky Medical Center, Lexington
Clinical Mycology Unit, State Respiratory Disease Hospital, Paris
- 10:10 a.m. "TB Meningitis"
Judah Skolnick, M.D.
Section of Respiratory and Environmental Medicine
University of Louisville School of Medicine, Louisville
- 11:00 a.m. "New Aspects of Managing Pulmonary Infections in the Immunosuppressed Patient"
*James Smith, M.D., Associate Professor
Section of Infectious Disease
University of Texas Medical School
Dallas
- 11:30 a.m. "Stump the Experts"
Case Presentations from the Audience
Panel to be announced
- 12:30 p.m. Adjournment

Accreditation from the Kentucky Academy of Family Physicians has been requested.

General LEASING

Doctor! This is Your Own Plan
ENDORSED BY THE

**Kentucky Medical
Association**

for the leasing of

*cars—all makes & models,
Medical, Surgical & Laboratory
Equipment
and Office Furnishings.*

**13 YEARS EXPERIENCE
IN THIS FIELD**

**General Leasing
CORPORATION**

121 Bauer Ave. St. Matthews

(502) 896-0383

PRESCRIBING INFORMATION
Antiminth (pyrantel pamoate) Oral Suspension

Actions. Antiminth (pyrantel pamoate) has demonstrated anthelmintic activity against *Enterobius vermicularis* (pinworm) and *Ascaris lumbricoides* (roundworm). The anthelmintic action is probably due to the neuromuscular blocking property of the drug.

Antiminth is partially absorbed after an oral dose. Plasma levels of unchanged drug are low. Peak levels (0.05-0.13 µg/ml.) are reached in 1-3 hours. Quantities greater than 50% of administered drug are excreted in feces as the unchanged form, whereas only 7% or less of the dose is found in urine as the unchanged form of the drug and its metabolites.

Indications. For the treatment of ascariasis (roundworm infection) and enterobiasis (pinworm infection).

Warnings. *Usage in Pregnancy:* Reproduction studies have been performed in animals and there was no evidence of propensity for harm to the fetus. The relevance to the human is not known.

There is no experience in pregnant women who have received this drug.

Precautions. Minor transient elevations of SGOT have occurred in a small percentage of patients. Therefore, this drug should be used with caution in patients with pre-existing liver dysfunction.

Adverse Reactions. The most frequently encountered adverse reactions are related to the gastrointestinal system.

Gastrointestinal and hepatic reactions: anorexia, nausea, vomiting, gastralgia, abdominal cramps, diarrhea and tenesmus, transient elevation of SGOT.

CNS reactions: headache, dizziness, drowsiness, and insomnia. Skin reactions: rashes.

Dosage and Administration. *Children and Adults:* Antiminth Oral Suspension (50 mg. of pyrantel base/ml.) should be administered in a single dose of 11 mg. of pyrantel base per kg. of body weight (or 5 mg./lb.); maximum total dose 1 gram. This corresponds to a simplified dosage regimen of 1 cc. of Antiminth per 10 lb. of body weight. (One teaspoonful = 5 cc.)

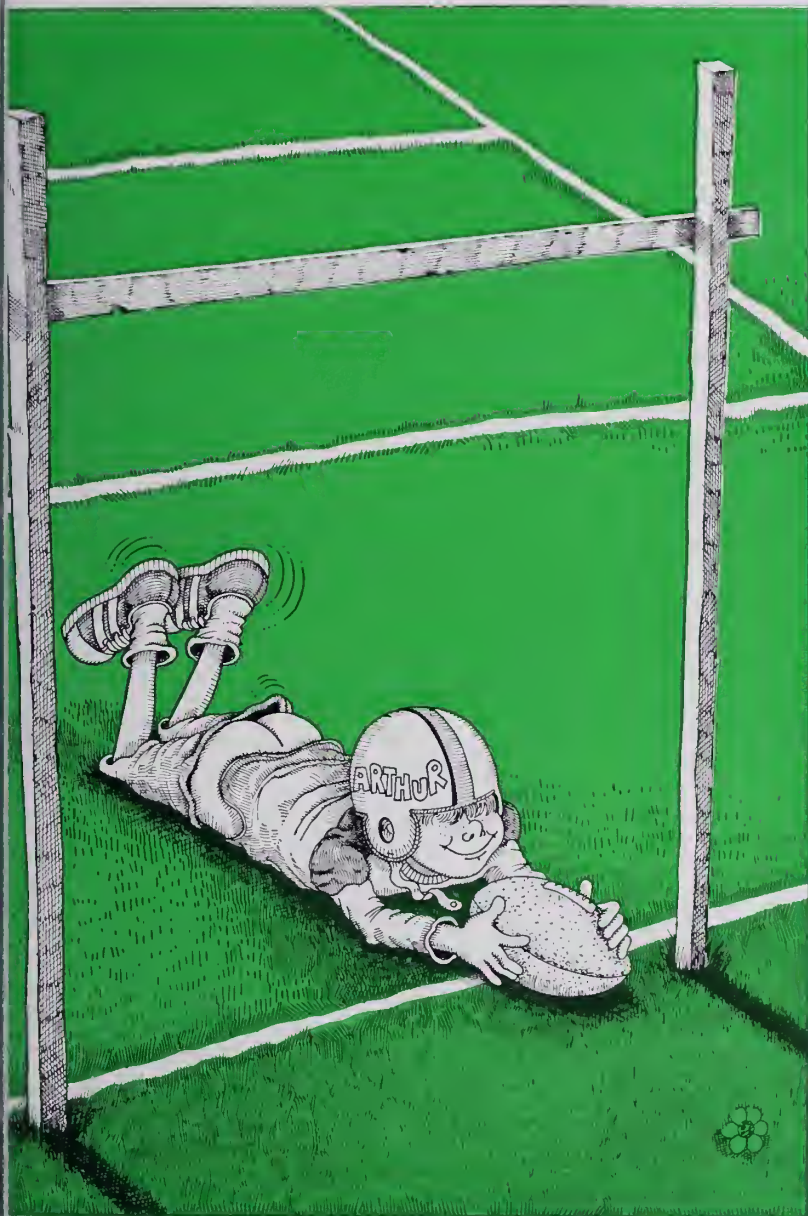
Antiminth (pyrantel pamoate) Oral Suspension may be administered without regard to ingestion of food or time of day, and purging is not necessary prior to, during, or after therapy. It may be taken with milk or fruit juices.

How Supplied. Antiminth is available as a pleasant tasting caramel-flavored suspension which contains the equivalent of 50 mg. pyrantel base per ml., supplied in 60 cc. bottles and Unitcups™ of 5 cc. in packages of 12.

ROERIG 

A division of Pfizer Pharmaceuticals
New York, New York 10017

WORMS BLITZED



A single dose of Antiminth (1 cc. per 10 lbs. of body weight, 1 tsp./50 lbs. — maximum dose, 4 tsp.=20 cc.) offers highly effective control of *both* pinworms and roundworms.

Antiminth has been shown to be extremely well tolerated by children and adults alike in clinical studies.* Pleasantly caramel-flavored, it is non-staining to teeth and oral mucosa on ingestion... doesn't stain stools, linen or clothing.

One prescription can economically treat the entire family.

ROERIG **Pfizer**

A division of Pfizer Pharmaceuticals
New York, New York 10017

**Pinworms, roundworms controlled
with a single, non-staining dose of**

ANTIMINTH[®]
(pyrantel pamoate)

equivalent to 50 mg pyrantel/ml.

ORAL SUSPENSION

**DARVON®
COMPOUND-65**
65 mg. propoxyphene hydrochloride, 227 mg.
aspirin, 162 mg. phenacetin, and 32.4 mg. caffeine

Darvocet-N® 100
100 mg. propoxyphene napsylate
and 650 mg. acetaminophen

Lilly

Additional information available to the profession on request.
Eli Lilly and Company • Indianapolis, Indiana 46206

400760

The JOURNAL *of the* Kentucky Medical Association

ISSUED MONTHLY UNDER THE DIRECTION OF THE BOARD OF TRUSTEES

VOLUME 72

SEPTEMBER 1974

No. 9

Vinyl Chloride and Angiosarcoma

J. BRADFORD BLOCK, M.D.*

Frankfort, Kentucky

Clinical and pathological findings associated with angiosarcoma of the liver are discussed. The diagnosis and treatment of these tumors is also considered.

THE recent discovery of seven cases of angiosarcoma of the liver among vinyl chloride workers at the Louisville B. F. Goodrich Plant has attracted international attention and renewed interest in this rare tumor. To date, there are 26 known cases of angiosarcoma of the liver associated with vinyl chloride exposure. This relationship might have gone unnoticed except for the rareness of this tumor.

The diagnosis of angiosarcoma of the liver was confirmed in all seven cases by pathologists at the National Institute of Health after reviewing autopsy materials. The pathologists also reported that all seven cases showed "an unusual type of cirrhosis." They had no further comment except to say that the cirrhosis was definitely not of the alcoholic type.

Epidemiology

Primary carcinoma of the liver is uncommon in this country and those of mesodermal origin are extremely rare. Herxheimer¹ reviewing the literature in 1930 found 15 acceptable cases of angiosarcoma of the liver in adults. To date, 13 angiosarcomas (does not include children or Thorotrast cases) of the liver in adults have

been reported in the world literature.² None of the cases reported in the literature were in any way linked to vinyl chloride exposure.

Pathology

Differences of opinion on the pathogenesis of this tumor have caused some confusion in the nomenclature. The tumor has had a variety of names such as Kupffer's cell sarcoma,³ haemangioendothelioma,⁴ angiosarcoma or angiomatous mesenchymoma^{5,6} and haemangioblastoma.⁷

Because of the apparent origin of these tumors in primitive mesenchymal remnants, it can be argued that the term "mesenchymoma"⁶ is fundamentally correct. This concept of origin explains features such as "resemblance to Kupffer's cells"^{3,8,9} "tendency toward blood vessel formation",¹⁰ presence of hematopoietic foci^{3,7,11-13} and the property of phagocytosis.¹³ Although the argument goes on, the term in common usage today for these tumors is angiosarcoma.

All seven cases from the Louisville plant had some non-alcoholic form of cirrhosis of the liver. Baker³ and Miller¹⁴ have discussed the possibility that angiosarcomas arise in previously cirrhotic livers. Eleven of the previously reported cases developed in cirrhotic livers,³ but in five cases reported by Adam² none had pre-existing cirrhosis. This relationship has long been debated. Sagebiel¹⁵ felt that if such a relationship did exist that the postnecrotic and posthepatic types of cirrhosis and not the alcoholic type were involved. It thus seems likely, based upon the Louisville cases, that

Medical Consultant to the Department of Labor, Frankfort

pre-existing cirrhosis of the liver plays an important role in the genesis of the angiosarcoma.

Clinical Findings

About two-thirds of all carcinomas of the liver have a clinical onset characterized by indefinite abdominal symptoms usually attributed to gastric disturbances.¹⁶ Nausea and vomiting, a sense of fullness and abdominal pressure in the epigastrium are common.¹⁷ The liver is enlarged in 89% of the cases.¹⁷ Three of the vinyl chloride cases were at first diagnosed as stomach ulcers. The liver was enlarged in all seven.

Hastings-James⁷ described a typical vascular hum heard on auscultation over the hepatic region. Geschicter and Keasby¹⁸ observed skin hemangiomas associated with hepatic angiosarcoma.

Diagnosis

Laboratory: The liver can endure extensive damage before there is significant functional impairment. Therefore, most liver function tests are of little value in the screening for primary carcinoma of the liver. However, they may prove useful in high risk groups such as vinyl chloride workers. The serum alkaline phosphatase determination appears to be the most sensitive, but should be done in conjunction with the bromsulphalein test or several other tests to rule out bone disease.¹⁷ Serum glutamic oxalacetic transaminase is also elevated in a high percentage of cases, but this does not occur until late in the course of the disease.¹⁷

The 1964, Tatarinov¹⁹ demonstrated the presence of alpha-fetoprotein in patients with primary liver carcinoma. He suggested that it might be used as a diagnostic procedure.

World-wide studies²⁰ by the International Agency for Research on Cancer showed the presence of alpha-fetoprotein in 75% of patients with histologically confirmed liver cancer. It was concluded that the test was highly specific for liver cancer. The great value of this test is the fact that it is able to detect cases before the appearance of clinical symptoms.²⁰ According to Purves²² the test appears to be specific for cancer of the liver. False positives, for all practical purposes, do not occur. "If the results are positive, the patient has a primary carcinoma of the liver."²³ The value of this test in screening vinyl chloride workers has not

been established. Test results were negative on the two surviving cases.

Arteriography

Arteriography is of value in determining the location and extent of the tumor and may be helpful in planning surgery.

Photoscanning

Photoscanning utilizing iodine,¹³¹ rose bengal and gold¹⁹⁸ may be useful in the identification of the tumor.²⁴ Achaval²⁵ found iodine¹³¹ and rose bengal to be diagnostic in 23 of 36 cases of primary tumors of the liver. In another series¹⁷ this procedure successfully delineated the tumor in 19 of 21 of those tested.

Biopsy

Percutaneous needle biopsy has been successful in revealing liver carcinoma in about one third of the cases.¹⁷ Surgical biopsies obtained at laparotomy had about the same success rate.¹⁷ However, these procedures are contraindicated where angiosarcoma is suspected. The vascular nature of this tumor increases the possibility of exsanguinating hemorrhage.

Treatment and Prognosis

In adults, carcinoma of the liver is, if untreated, uniformly fatal. It is characterized by rapid downhill progression leading to death within six months.

The use of 5-fluorouracil, Thio-Tepa and other chemotherapeutic agents are of palliative value only.¹⁷ Geddes and Falkson²⁶ found that intrahepatic artery infusion by methotrexate gives the best palliation but does not prolong survival time significantly.

Carcinoma of the liver can be cured only by surgical excision and this is possible only when the lesion is well localized.²⁷ However, in our series²⁸ of 116 cases only 27% were resectable.

Radiation therapy may alleviate the symptoms but does not prolong survival. A tumor dose of less than 2000 rads is not effective; larger doses are palliative only.²⁹

Comment

There are at least two basic hypotheses that must be explored:

1. The development of angiosarcoma of the

liver is the result of low level exposure to vinyl chloride over a period of years.

2. The development of angiosarcoma of the liver is the result of a high level exposure many years ago.

The fact that all of these men were veteran employees with at least 12 years potential exposure would seem to favor the first hypothesis. However, in each case there was also the possibility of a high level exposure during the early work history. Most of these men were at one time "pot cleaners." They were required to enter large tanks approximately ten feet high and six feet in diameter with only a two foot oval opening in the top to chip the residue of the chemical reaction from the sides of the tank. The potential for exposure to high levels of vinyl chloride while cleaning these tanks was particularly likely during the early years of this operation. The residue often contained pockets of trapped gases that were literally released in the cleaner's face when ruptured by his chipping operation. New cleaning techniques, as well as the development of new industrial hygiene controls, including the use of respirators, has reduced considerably the potential exposure.

Angiosarcoma of the liver has been reported in man following injection of a colloidal solution of thorium dioxide (Thorotrast) which was used as a contrast material in diagnostic radiology. There are approximately 50 cases recorded in the literature.³⁰ Looney³¹ analyzed 20 such patients and found a mean latent period of 18 years from administration of Thorotrast to the tumor induction. The mean latent period for the Louisville cases was 17 years. That is the time from first exposure to vinyl chloride and development of the tumor. Experimental work is now underway to help resolve this question.

Summary

Angiosarcoma of the liver is notorious for its insidious onset and silent course which renders early diagnosis difficult if not impossible. Liver function tests are of little value in screening because extensive liver damage must take place before there is significant functional impairment. Photoscanning and arteriography may be helpful in identification of the tumor and in planning for surgery. Biopsy is contraindicated because of the vascular nature of these tumors

and the possibility of exsanguinating hemorrhage. Angiosarcoma of the liver can be cured only by surgical excision. Radiation therapy and chemotherapy are of palliative value only and do not significantly prolong survival time. Any vinyl chloride worker with symptoms of gastric ulcer should be considered suspect and should be worked up for possible angiosarcoma of the liver.

References

1. Herxheimer, G. In Henke and Lubarsch's *Handbuch der speziellen pathologischen Anatomie und Histologie*, Bd. 5, pt. 1, p. 797, 1930.
2. Adam, Yehuda G., Huvos, Andrew G., and Hajdus, Steven I., Malignant Vascular Tumors of Liver. *Ann. Surg.* 175:pp. 375-83, 1972.
3. Baker, H.De C., Paget, G. E., and Darson, J.: Haemangio-endothelioma (Kupffer-cell sarcoma) of liver. *J. Path and Bact.* 72: pp. 173-82 1956.
4. Kothny, K.: Ueber ein Hamangioendotheliom in zirrhotischer Leber, *Frankfurt Ztschr. f. Path.* 10:20-41, 1912.
5. Evans, R. W.: *Histological Appearance of Tumors; With a Consideration of Their Histogenesis and Certain Aspects of Their Clinical Features and Behavior*. Edinburgh, E and S. Livingston Ltd. pp. 61-66, 1956.
6. Willis, R. H.: *Pathology of Tumors*, 2nd ed. London. Butterworth & Co. Ltd., pp. 712-713, 1953.
7. Hastings-James, R.: Malignant haemangio-endothelioma (haemangioblastoma) of liver. *J. Path. & Bact.* 61:49-53, 1949.
8. Gray, J.: Case of malignant haemange-iomatous endothelioma. *J. Path & Bact.* 32:337-339, 1929.
9. Ogilvie, R. F., and MacKenzie, I.: Malignant haemangio-endothelioma with report of 2 cases. *J. Path & Bact.* 43:143-150, 1936.
10. Navasquez, S. De: Angioblastoma of spleen with metastases in liver. *J. Path. & Bact.* 42:651-656, 1936.
11. Fischer, B.: Ueber ein primares angi endotheliom der Leber. *Frankfurt Ztschr. f. Path.* 12:339-421, 1913.
12. Kahle, H.: Ueber ein Hamogenion und Leukozyten erzeugendes Angiosarkom in zirrhotischer Leber. *Virchows Arch. f. Path Anat.* 226:44-63, 1919.
13. Schonberg, S.: Das Hamangioendotheliom der Leber. *Frankfurt Ztschr. f. Path* 29:77-101, 1923.
14. Miller, E. A., Richards, W. G., and Reed, W. H.: Hemangioendothelial Sarcoma of the Liver (Kupffer-cell Sarcoma). *Wisconsin Med. J.* 63:471, 1964.
15. Sagebiel, R. W., McFarland, R.B., and Taft, E. B.: Primary Carcinoma of the liver in relation to cirrhosis, *Amer. J. Clin. Path.* 40:516-520, 1963.
16. Berman, C.: *Primary Carcinoma of the Liver; A Study in Incidence, Clinical Manifestations, Pathology and Etiology*. London, H. K. Lewis & Company Ltd., 1950.
17. Nelson, R.S., Eleyalde, R. De., and Howe, C.D., Clinical Aspects of Primary Carcinoma of the Liver. *Cancer* 19:533-537, 1966.
18. Gescheckter, C. F. and Keasby, L.E.: Tumors of Blood Vessels. *Am. J. Cancer* 23:568, 1935.
19. Tatarinov, Y.: Detection of embryospecific-globulin in the blood sera of patients with primary liver tumors. *Vopr. Med. Chimii* 10:90-91, 1964.
20. O'Connor, G. T., Tatarinov, Y., Abelev, G. F., Uriel, J.: A collaborative study for the evaluation of a serologic test for primary liver cancer. *Cancer* 25, 1091-1098, 1970.
21. Tuyns, A. J. Recent Techniques and Hypotheses in the Epidemiology of Liver Cancer, *Recent Results — Cancer Res.* 39:119-124, 1972.
22. Purves, L.R., Bersohn, I., and Geddes, E. W.: Serum alpha-feto-protein and primary cancer of the liver in man. *Cancer* 25:1261-1270, 1970.
23. Ackerman, L.V.: *Cancer, Diagnosis, Treatment and Prognosis*, 4th ed. Mosley, St. Louis, 1970.
24. Ariel, I.M.: An aid for determining treatment of liver cancer by combined hepatic gamma-scanning. *Surg. Gynec. Obstet.* 21:267-674, 1965.

(Continued on page 505)

Lymphocutaneous Sporotrichosis in Childhood†

SURJEET SINGH DHANJAL, M.B.B.S., ASHOK KALE, M.D., AND
JOSEPH BABEY, M.D.

Louisville, Kentucky

Lymphocutaneous Sporotrichosis among children is not a common occurrence, but is being reported with greater frequency.

SPOROTRICHOSIS is an uncommon fungal disease with a world-wide distribution, caused by the fungus *Sporotrichum schenkii*. The fungus is biphasic, existing in nature as a mold and in the human host as a yeast.¹ The infection is usually acquired through traumatic implantation and rarely through the respiratory or the gastrointestinal tract.² Although the disease can affect virtually every organ in the body,³ the commonest form encountered in clinical practice is the lymphocutaneous variety.

Case Report

The patient, a four-year-old male child, was admitted to the St. Joseph Infirmary, Louisville, Kentucky, on July 17, 1972, with the complaint of a large ulcer on the forearm of a week's duration.

Four weeks prior to the development of the granuloma, the patient had been scratched superficially on both forearms by a cat. Two days after the scratch, he had visited the countryside and had been playing out in the weeds. The patient's house is in close proximity to a greenhouse and he often went there for play. This was followed two weeks later by the development of a red, raised painless nodule. The nodule broke down and resulted in an ulcer on the forearm.

On examination, the patient had a raised granulomatous lesion at the junction of upper and middle thirds of the ventral aspect of the right forearm (Fig. 1). The edges were firm and piled up, and the ulcer crater measured 3 cm in diameter. The floor of the ulcer was covered with a thick, mucopurulent discharge with some

crusts. The lesion could be moved freely over the underlying structures. There was a raised, reddish nodule, .5 cm in diameter on the ventral surface of the right arm, approximately 5 cm above the granulomatous lesion and 2 cm above the right antecubital flexure. The lymph nodes in the right axillary region were palpable and approximately 2 cm in diameter, but were not tender and showed no discoloration. The patient was afebrile throughout the course of the illness. Skin test for cat scratch fever was not done because of paucity of signs and symptoms for cat scratch fever.

The total leucocyte count was 10,600 with 39% polymorphs, 40% lymphocytes, 10% eosinophils, and 9% monocytes. The hemoglobin was 13.5gm%. A swab from the lesion showed collections of polymorphonuclears, eosinophils, macrophages, and some gram positive cocci. All the other examinations, including urine analysis, blood culture, x-ray of the chest and right forearm, were negative.

The patient was treated empirically on oral ampicillin and topical antibacterial ointment. The lesion, however, did not respond. The node above the lesion enlarged and numerous pinpoint satellite lesions appeared around the granuloma. The antibiotic treatment, therefore, was stopped; a fresh sample was obtained for fungus culture, and a biopsy of the ulcer and



FIG. 1 Photograph showing the ulcer and nodule with subsequent development of satellite lesions around the ulcer.

†From the Department of Pediatrics, St. Joseph Infirmary, Louisville

the node on the right arm was obtained. The biopsy material of the main lesion processed with special stains revealed very small, darkly-staining, round particles consistent in size and appearance to *Sporotrichum schenkii*. The swab material from the lesion grown on Sabouraud's agar grew moist white colonies within five days. They were subcultured and the growth of *Sporotrichum schenkii* was confirmed.

Following the diagnosis, the patient was placed on oral potassium iodide therapy and the lesions responded to the treatment with regression of lymphadenopathy.

Discussion

Childhood sporotrichosis is an uncommon condition.⁵ The lymphocutaneous form is characterized by the development of an indolent granuloma with nodules along the course of the lymphatics. The absence of satellite nodules and nodules along the draining lymphatics or prominent streaking of the lymph channels usually causes difficulty in diagnosis. There are no systemic symptoms; a history of trauma at the site of lesion can often be excited and, characteristically, the infection does not respond to antibiotics. Initial studies such as direct smear from the lesion and culture for bacterial growth are negative. This should prompt a careful search for the *Sporotrichum schenkii* by means of special staining and culture techniques. Lymphocutaneous Sporotri-

chosis in children has been reported with an increasing frequency,^{1,4,6-8} probably suggesting that many cases may have been missed in the past owing to the relative rarity of this condition in childhood. Treatment with potassium iodide is curative in Lymphocutaneous Sporotrichosis⁹ and no failures have been reported so far.

It would be interesting to speculate on the mode of infection in this case. Although the cat scratch probably did not play any part except by facilitating the inoculation of the fungus, contact with prairie hay¹⁰ in the countryside or sphagnum moss⁷ in the greenhouse may have transmitted the infection.

References

1. Orr, R.E. and Harris, Jr., R.D.: "Sporotrichosis in Childhood". *J. Ped.*, 78:951, 1971.
2. Manhart, J. W., Wilson, J. A., Korbitz, B. C.: "Articular and Cutaneous Sporotrichosis". *JAMA*, 214: 365, 1970.
3. Wilson, D. E., Mann, J. J., Bennett, J. E., and Utz, J. P.: "Clinical Features of Extracutaneous Sporotrichosis". *Medicine* 46, 3:265, 1967.
4. Mikkelsen, W. M., Brandt, R. L., and Harrell, E. R.: "Sporotrichosis" (A report of 12 Cases, including two with skeletal involvement). *Ann. of Int. Med.* 47:435, 1957.
5. Carpenter, C. L. and Jolly, M. W.: "Sporotrichosis in Childhood". *Pediatrics* 42:689, 1968.
6. Chandler, J. W., Kriel, R. L., Tosh, F. E.: "Childhood Sporotrichosis". *Amer. J. Dis. Child.* 115:368, 1968.
7. Dahl, B. A., Siberfarb, P. M. and Sarosi, G. A.: "Sporotrichosis in Children" (Report of an epidemic). *JAMA* 215:1980, 1971.
8. Lynch, P. J. and Botero, F.: "Sporotrichosis in Children". *Amer. J. Dis. Child.* 122:325, 1971.
9. Domonkos, A. N.: *Andrew's Diseases of the Skin*. W. B. Saunders, Philadelphia, 1971, pp. 356-357.
10. Powell, K. E. and Hodges, B. E.: "Epidemic Sporotrichosis". *JAMA* 217:340, 1971.

Manuscript Memos

Manuscripts should be submitted in duplicate to *The Journal of KMA*, an original copy and one carbon, and typed with double spacing. Maximum length of an article should not exceed 4500 words; the Board of Consultants on Scientific Articles prefers that they be briefer than this when possible.

In submitting a manuscript, the author is requested to include a concise summary, not to exceed 35 words, to be used as a sub-title when the article is published in *The Journal*. The purpose of the summary is to create additional interest and encourage greater readership.

Footnotes and bibliographies should conform to the style of the *Quarterly Cumulative Index Medicus* published by the American Medical Association. This requires in the order given name of author, title of article, name of periodical, with volume, page, month—day of month if weekly—and year. *The Journal of the KMA* does not assume responsibility for the accuracy of references used with scientific articles.

All scientific material appearing in *The Journal* is reviewed by the Board of Consultants on Scientific Articles. The editors may use up to six illustrations with the essayist bearing the cost of all over three one-column halftones.

Arrangements for reprints of an article should be made directly with the publisher of *The Journal*, Gibbs-Inman Printing Company, 817 W. Market St., Louisville, Ky.

The bylaws of the Kentucky Medical Association provide that all scientific discussions and papers read before the KMA Annual Meeting shall be referred to the KMA Journal for consideration for publication. The bylaws further state that the editor or the associate editor may accept or reject these papers as it appears advisable and return them to the author if not considered suitable for publication.

Please mail your scientific articles to *The Journal of the Kentucky Medical Association*, 3532 Ephraim McDowell Drive, Louisville, Kentucky 40205.

Arterio-Venous Malformation of the Colon

Case Report

GUSTAVO E. HERNANDEZ, M.D.*, ROBERT E. DURNIN, M.D.***, AND
PATRICK F. HAGIHARA, M.D.***
Lexington, Kentucky

A case of arterio-venous malformation of the cecum and ascending colon is presented in which the diagnosis was established by selective superior mesenteric arteriography.

GASTROINTESTINAL bleeding due to vascular malformations may elude all conventional radiographic contrast examinations. Recent developments in angiographic techniques make precise diagnosis of these lesions possible.²⁻⁴ The present case report illustrates the value of selective visceral angiography in the demonstration of an arterio-venous malformation of the colon.

Case Report

D.N., a 65-year-old white male, was admitted to the University of Kentucky Medical Center for the third time in October, 1973, for an evaluation of recurrent massive rectal bleedings of five year's duration. On his first admission to this hospital, he had a severe iron deficiency anemia. A thorough GI workup, including upper GI series, barium enema, and sigmoidoscopy, were within normal limits. Subsequently, he had multiple admissions to the local hospital for recurrent rectal bleedings, some of which were massive and required multiple transfusions. He had at least five upper GI series and about the same number of barium enemas—all of which were negative. Air contrast examination of the colon was also negative (Fig. 1). Gastrosopies and sigmoidoscopies during the episodes of bleeding did not reveal any lesion. When he was admitted to this hospital in October, 1973, bright red rectal bleeding had subsided and he was having

melena. With the suspicion that this bleeding was most likely due to arterio-venous malformations in the colon, selective celiac, superior mesenteric and inferior mesenteric artery angiograms were carried out, after introduction of the catheter into the abdominal aorta in a retrograde fashion from the right groin by the Seldinger percutaneous technique. The selective superior mesenteric artery angiogram demonstrated an enlarged ileocolic artery. A branch of the ileocolic artery terminated in a tangle of small vessels with subsequent early massive filling of the ileocolic vein in the arterial phase (Fig. 2a, b). The angiographic findings were compatible with a large arterio-venous malformation in the cecum and ascending colon, possibly extending into the terminal ileum.

Subsequently, the patient underwent an elective right hemicolectomy with an ileotransverse colostomy. The arterio-venous malformation seen on angiography could not be appreciated at the time of surgery, although a large



FIG. 1 Spot film of normal cecum — air contrast study.

*Indian Path Hospital, Kingsport, Tennessee
**Department of Diagnostic Radiology and
***the Department of Surgery, University of Kentucky Medical Center, Lexington

mesenteric vein draining the terminal ileum was noted as was visualized at the time of angiography. Thin barium was injected into the ileocolic artery of the resected specimen, which demonstrated that the vascular malformation seen on the preoperative arteriogram was limited to the cecum and ascending colon (Fig. 3). On opening the specimen, the mucosal surface of the cecum and proximal ascending colon revealed multiple small ulcerations (Fig. 4). Histologic sections of this area confirmed the presence of mucosal and submucosal vascular malformations. He has had no further rectal bleeding and his hematocrit has remained stable.

Comment

A correct diagnosis can be established in most of acute gastrointestinal bleedings by conventional radiographic and appropriate endoscopic examinations. An acute upper gastrointestinal bleeding is usually secondary to peptic ulcer disease, gastritis, varices, Mallory-Weiss Syndrome, or a tumor—all of which are relatively accessible to ordinary examinations. The most frequent cause of an acute massive lower gastrointestinal bleeding is diverticulosis of the colon. Less frequently, a colonic carcinoma or a polyp may be the cause. However,



FIG. 2b Early venous phase. Venous drainage from the cecum is dense and the veins are dilated. (→) ICV = Ileocolic Vein

cases are encountered in which the etiology of repeated acute lower gastrointestinal bleedings elude repeated conventional diagnostic procedures including an exploratory laparotomy. Probably most of these cases are arterio-venous malformations of the intestine, which could only be demonstrated by selective visceral angiography. The presence of acute bleeding is not a requirement in the angiographic demonstration of arterio-venous malformations in the intestine. These vascular malformations are most commonly located in the large bowel, particularly on the right side.^{3,4,6}

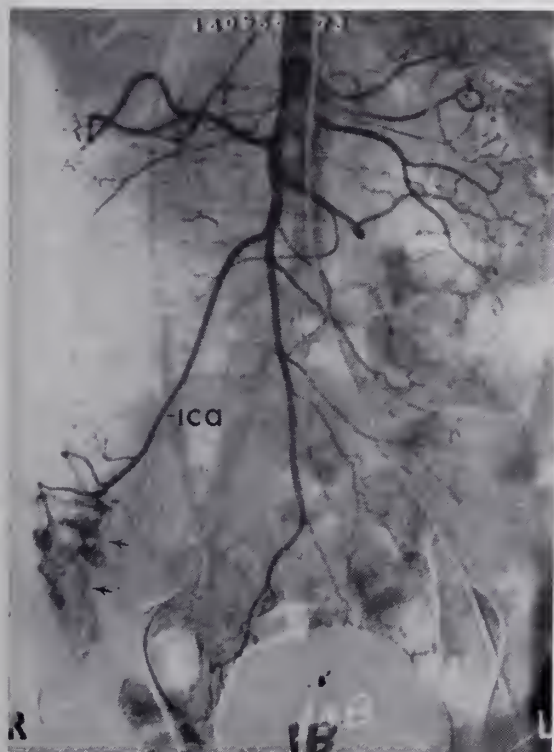


FIG. 2a Early arterial phase. Small tangle of abnormal vessels at the site of the arteriovenous shunt. (→) ICA = Ileocolic Artery

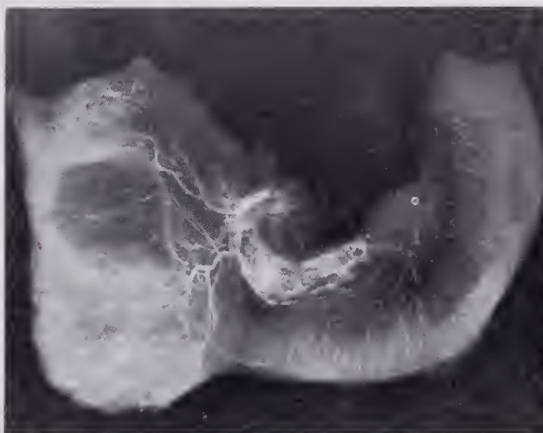


FIG. 3 Surgical specimen injected with thin barium through the Ileocolic Artery, demonstrating A-V Malformation.

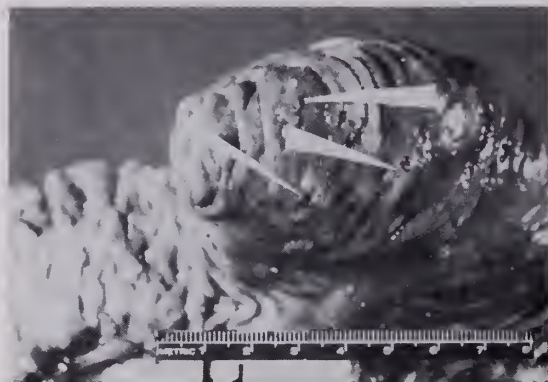


FIG. 4 Multiple small ulcerations in the cecum as indicated by arrows.

Angiographic findings of arterio-venous malformations should be accompanied by appropriate contrast studies. Similar angiographic characteristics may be encountered in some colonic carcinomas, leiomyosarcoma, and carcinoid tumor of the small bowel.³

Selective visceral arteriography is also useful in localizing the bleeding point during the acute massive stage of a gastrointestinal bleeding due to any cause, including arterio-venous malformation.^{5,6} With the recent development of serial magnification techniques, the diagnostic capability of selective visceral arteriography is considerably enhanced by rendering small ar-

terio-venous malformations and bleeding points more easily visible.

Summary

Arterio-venous malformations of the gastrointestinal tract often elude conventional radiologic and other diagnostic techniques. These vascular malformations can be demonstrated by selective visceral angiography. A case of arterio-venous malformation of the cecum and ascending colon is presented in which the diagnosis was established by selective superior mesenteric arteriography.

References

1. Retzlaff, J.A., Hagerdon, A.B., Bartholomew, L.G. Abdominal Exploration for Gastrointestinal Bleeding of Obscure Origin. *JAMA* 177: 104-107, 1961.
2. Edie, R.N., Brennan, J.T. Colonic Hemorrhage from Arteriovenous Anastomosis. *Arch Surg.* 99: 674-675, 1969.
3. Alfidi, R.J., Esselstyn, C.D., Tarar, R., Klein, H.J., Hermann, R.E., Weakley, F.L., and Turnbull, R.B. Recognition and Angiosurgical Detection of Arteriovenous Malformations of the Bowel. *Ann Surg.* 174: 573-581, 1971.
4. Cooperman, A.M., Kelly, K.A., Bernatz, P.E. and Huizenga, K.A. Arteriovenous Malformation of the Intestine. *Arch. Surg.* 104: 284-287, 1972.
5. Baum, S., Stein, G.N., Nusbaum, M. et al. Selective Arteriography in the Diagnosis of Hemorrhage in the Gastrointestinal Tract. *Radiol. Clin. N. Amer.* 7: 131-145, 1969.
6. Nusbaum, M., Baum, S. and Blakemore, W.S. Clinical Experience with the Diagnosis and Management of Gastrointestinal Hemorrhage by Selective Mesenteric Catheterization. *Ann. Surg.* 170: 506-513, 1970.

Notice To Contributors

Members of the Kentucky Medical Association reading papers before other organizations are asked to submit their papers to *The Journal* for consideration by the Editors for publication. Detailed instructions to contributors appear in the Scientific Section of *The Journal* under Manuscript Memos. Please forward any papers to:

Charles C. Smith, Jr., M.D., Scientific Editor
The Journal of the Kentucky Medical Association
3532 Ephraim McDowell Drive
Louisville, Kentucky 40205

Medical Progress

Childhood and the Prevention of Atherosclerosis

CAROL M. COTTRILL, M.D.*

ONE of the most significant challenges facing medical science and public health today is the mortality, morbidity, and disability due to atherosclerosis. Cerebrovascular disease, coronary artery disease, renovascular disease, and peripheral vascular disease become evident when the supplying arteries are occluded by 75%. Clinically manifest atherosclerotic disease is seen in the populations of developed countries near the end of the third decade of life.¹

The natural history of atherosclerosis involves an initial lesion, the fatty streak, which is present in the aortas of many children under three years and in all children over three years of age at autopsy.² Fatty streaks make their appearance in coronary arteries a little later, but are usually present after age 20.³ There is a considerable time-lag between the appearance of this initial lesion and its progression through the stages of fibrous plaque to calcification, hemorrhage, ulceration, and thrombosis which constitutes the complex lesion responsible for symptomatic atherosclerosis.

Considering the natural history of atherosclerosis, let us explore several questions regarding the development of the process, hoping to gain insight into the real situation as we face it in America today. Our cultural development has placed us among those affluent peoples whose diets are higher in fats, carbohydrates and calories, when compared to present-day primitive peoples who enjoy much lower rates of atherosclerosis.⁴⁻⁶ Diets high in saturated fats and cholesterol have been shown to be a frequent concomitant of coronary artery disease.^{7,8} Because we are a mechanized society,

decreased demands for physical exertion have made it easier for us to become sedentary and obese adults.⁹ Modern-day life is thought to increase emotional stress.

Given modern-day life as it is, can we recognize those individuals who are more likely to develop atherosclerosis before any clinical evidence of disease is present and if so, is there any real way of slowing down or stopping the progress toward compromise of vital organ systems? The most reliable predictor of the development of atherosclerotic disease is the concentration of cholesterol and triglyceride in the serum.^{7,10} The amount of cholesterol in the serum varies directly with age. In the newborn, the cholesterol concentration is about 65 mg/100 ml.¹¹ This rises to about 165 mg/100 ml by age 2,¹² then the level plateaus^{13,14} until about age 20. A very slow rise commences at about age 20 and continues until about age 60. Several studies have documented in epidemiologic fashion that there is a three-to-four fold increase in atherosclerotic heart disease between levels of 200 and 300 mg/100 ml in groups of persons over 40 years of age.¹⁵⁻¹⁷

What is an abnormal cholesterol level? There is no known "safe" level, but Frederickson and Levy¹⁴ have declared abnormal, the upper 5% of concentrations found randomly in Americans. This ranges from 230 mg/100 ml at ages 1-19 to 330 mg/100 ml at age greater than 50 years for plasma total cholesterol. They recommend investigation as to the etiology of the hyperlipidemia and treatment of the primary process in the small number of individuals with "secondary" hyperlipidemia (i.e. —due to hypothyroidism, drug ingestion, alcoholism, pancreatitis, nephrosis, multiple myeloma, etc.). Most individuals with elevated serum lipids have a disorder that is primary in nature (due to an abnormal diet or a metabolic

*Department of Pediatrics, Pediatric Cardiology, University of Kentucky Medical Center, Lexington

disorder) and these are the patients who benefit by dietary management.

Who is suspect and how does one identify those who are destined to develop atherosclerotic disease? Glueck et. al.,¹⁸ reported some work done relating family history and its use to identify children who were asymptomatic, but who had familial hyperlipidemia. They found that a single question asked during history-taking about the occurrence of myocardial infarction before the age of 50, together with subsequent serum lipid determinations in those families with a positive history, revealed that a statistically significant percentage had one of the types of inherited hyperlipidemia when compared to the control population. We are not as yet to the stage of screening an entire population for serum lipid levels^{11,19,20} but with careful family history-taking and recognition of the physical signs which accompany hyperlipidemias (xanthomas, corneal arcus, obesity, etc.) and associated abnormal laboratory findings (diabetic-type glucose tolerance curve and increased serum uric acid), individuals with familial types of lipoprotein disorders can be identified. Those physicians delivering primary health care to children and adults are in a unique position to investigate early the families likely to develop atherosclerotic disease and to institute therapeutic measures to lower serum cholesterol.

There are other "risk factors" which have been identified with increased incidence of atherosclerosis. Smoking and hypertension have been strongly implicated.^{17,21} Associated in a less definite manner are obesity,²² diabetes, the pursuit of sedentary life,²³ and personality type. The treatment of diabetes and hypertension is obviously indicated. The remaining risk factors are those of a habitual or behavioral nature. In order to change these, one would find himself in the position of educating and re-training large numbers of the population, a task certainly not easy, but one presenting tremendous challenge.

If dietary management and avoidance of certain risk factors are desirable in those known to have familial lipid disorders, is it appropriate to generalize that this is also desirable for our entire population? The Inter-Society Commission of the NIH²⁴ addressed itself to the broad question of the feasibility of primary prevention of atherosclerotic diseases, and made several

long-term recommendations in the areas of diet modification, smoking, and the pharmacologic control of blood pressure. They suggest the following "safe" and "reasonable" dietary changes:

1. That caloric intake should be adjusted to achieve and maintain optimal weight.
2. Reduction of dietary cholesterol to less than 300 mg/day. (Average diet in U.S. = 600 mg/d.)
3. Reducing dietary saturated fats to achieve a poly-unsaturated/saturated fat ratio of 1.5:1 (average children's diet is about 0.3:1) or less than 10% total calories as saturated fats (most children's diets contain about 35% saturated fats).

Even in light of these recommendations, the Commission recognizes that large-scale, long-term follow-up is essential and that at least 10 years are necessary to determine the effect of such recommendations.

With the present diet of non-poverished Americans today, many nutritional diseases have been eliminated. Rickets, pellagra, and scurvy are medical curiosities. Children are growing substantially larger than in previous eras. These are concrete evidence of the benefit of our present diet. It is not well established that neonates have definite cholesterol requirements for central nervous system development, but breast milk is known to contain large amounts of cholesterol, and it has been experimentally shown that about 10% of the brain cholesterol in infant rats at five days of age comes from exogenous origin (dietary). Thus, to advocate substantial changes in the diet of our children to achieve an indefinite goal may well create other medical problems, as yet unknown. Therefore, it has been suggested²⁷ that dietary treatment be reserved for those 5-7% of children who have familial lipid disorders rather than to try to change the diets of large numbers of the American childhood population.

In summary, we have seen the natural history of atherosclerosis, defined the population at risk as well as the factors thought to contribute to that risk, reviewed the recommendations of the Commission, and considered the application of these recommendations to the general

pediatric population. The deliverer of primary health care is in a unique position to accept the challenge of atherosclerosis, making his effort to educate, investigate and treat those large numbers of our population who will develop this affliction.

In short he can:

1. Recognize those families whose members have had early myocardial infarctions by history.
2. Be alert for the physical signs of hyperlipidemia.
3. Use lipid screening tests to determine individuals with abnormal lipid profiles and treat those individuals with diet and drugs where necessary.
4. Advocate the avoidance of smoking as a risk factor.
5. Diagnose and promptly treat hypertension and diabetes.
6. Follow recommendations of the Commission with respect to diet:
 - a. Adjust caloric intake to maintain optimal weight.
 - b. Reduce dietary cholesterol to less than 300 mg/day.
 - c. Achieve a better polyunsaturated/saturated fat ratio.

Only in this way, may we hope to see a reversal of the frightening trend toward early development of atherosclerosis.

References

1. *Atherosclerosis and Its Origins*. Academic Press, New York, 1963.
2. Holman, R. L. et. al.: The Natural History of Atherosclerosis: The early aortic lesions as seen in New Orleans in the Middle of the 20th Century, *Amer. J. Pathol.* 1968, 34(2): 209.
3. Strong, J. P., and H. C. McGill Jr.: The Natural History of Coronary Atherosclerosis, *Amer. J. Pathol.* 1962, 40:37.
4. Williams, J. R.: Nutrition and Ischemic Heart Disease, *Rev. Nutr. Res.* 31:17, 1971.
5. *Dietary Fat and Human Health: A report of the Food and Nutrition Board*, #1147, Nat'l Academy of Sciences, Nat'l Res. Council 1966, p. 1.
6. Prior, I. A.: The Price of Civilization, *Nutr. Today* 6:2, 1971.
7. Kannel, W. B. et. al.: Serum Cholesterol Lipoproteins, and the risk of coronary heart disease, *Ann. Intern. Med.* 74, 1, 1971.
8. Dayton, S., Chapman, J. M., Pearce, M. L., and Popjack, G. J.: Cholesterol Arteriosclerosis, ischemic heart disease and stroke. *Ann. Intern. Med.* 72:97, 1970.
9. Paffenbarger, R. A., Laughlin, M. E., Gima, A. S., Black, R. A.: Work Activity of longshoremen as related to death from coronary heart disease and stroke. *New Eng. J. Med.* 282:1109, 1970.
10. Dayton, S., Chapman, J. M., Pearce, M. L., and Popjack, G. J.: Cholesterol, arteriosclerosis, ischemic heart disease, and stroke. *Ann. Intern. Med.* 82:97, 1970.
11. Glueck, C. J., Heckman, F., Schoenfeld, M., Steiner, P., Pearce, W.: Neonatal familial type II hyperlipoproteinemia: cord blood cholesterol in 1800 births. *Metabolism* 20: 597, 1971.
12. Owen, G. M., and Dubin, A. H.: Nutritional status of preschool children. *Program of the Midwest Society for Pediatric Research*. Nov. 1971.
13. The rise of serum lipids in the young adult male. *Nut. Rev.* 26:70, 1968.
14. Frederickson, D. S., et. al. *Dietary Management of hyperlipoproteinemia. A handbook for physicians*. Nat'l Heart and Lung Institute, Bethesda, Md, Revised and reprinted. Jan. 1971.
15. Keys, A., Taylor, H. L., Blackburn, H., Brozek, J., Anderson, J. T., Simonson E.: Mortality and coronary heart disease among men studied for 23 years, *Arch. Intern. Med.* 128:201, 1971.
16. Chapman, J. M., and Massey, F. J. Jr.: The interrelationship of serum cholesterol, hypertension, body weight, and risk of coronary heart disease. Results of the first 10 years' follow-up in the Los Angeles Heart Study, *J. Chron. Dis.* 17:933, 1964.
17. Truett, J., Cornfield, J., and Kannel, W. B.: A multivariate analysis of the risk of coronary heart disease in Framingham, *J. Chron. Dis.* 20:511, 1967.
18. Glueck, C. J., et al. *Circulation* 48, II (Suppl. 4): Oct-Dec 1973.
19. Glueck, C. J., Tsang, R. C.: Pediatric Familial type II hyperlipoproteinemia. Effect of diet on plasma cholesterol in the first year of life, *Amer. J. Clin. Nutr.* 25: 224-230, 1972.
20. Drash, A.: Atherosclerosis, Cholesterol and the Pediatrician, *J. Pediatr.* 80:693-696, 1972.
21. Kannel, W. B., Dawber, T. R., and McNamara, P. M.: Detection of the coronary prone adult: The Framingham Study, *J. Iowa Med. Soc.*, 1966, pp. 26-34.
22. Seltzer, C. C.: Overweight and obesity. The associated cardiovascular risk, *Minn. Med.* 52:68, 1969.
23. Kannel, W. B.: Physical exercise and lethal atherosclerotic diseases, *New Eng. J. Med.* 282:1153, 1970 (editorial).
24. Primary Prevention of the Atherosclerotic Diseases, *Circulation*, Vol. XLII, Dec. 1970.
25. Chevallier, F.: Dynamics of cholesterol in rats, studied by the isotope equilibrium method. *Advance in Lipid Research*. Academic Press, 1967, p. 209-239.
26. Schubert, W. K.: Fat Nutrition and Diet in Childhood, *Amer. J. Cardiol.* 31:581-7, 1973.

Have You Moved Recently?

Please send any change of address to *The Journal of the Kentucky Medical Association*, 3532 Ephraim McDowell Drive, Louisville, Kentucky 40205. We need your help in keeping our mailing list up to date. You are our best source of information.

SPECIAL ARTICLES

Blue Cross and Blue Shield — Involved†

HENRY B. ASMAN, M.D.,* B. FRANK RADMACHER, M.D.,** and
R. PARNELL ROLLINGS, M.D.**

WE are most grateful for the opportunity to discuss the involvement of Kentucky Blue Cross and Blue Shield in our Commonwealth, in our profession, and with those citizens who are your patients and our subscribers.

Having "experienced" Blue Cross and Blue Shield both from the viewpoint of the practicing physicians and, more recently, from the inside involvement of the administration of the Plans, we believe that the major problems existing between the practicing physicians and the Blues stem primarily from a misunderstanding of the principles upon which Blue Cross and Blue Shield were organized and continue to operate, of the legal restraints under which it operates, and of the complexities of an operation which serves more than 40% of the population of the Commonwealth.

A better understanding of a few of the basic facts concerning Blue Cross and Blue Shield would, in our opinion, help to prevent some of the problems which arise from time to time between the profession and the Plans. The specific problem which causes most of the trouble—the rejection of claims—will be discussed, outlining the criteria we use in making such a determination.

A distinction that many individuals, including physicians, fail to make is that Blue Cross and Blue Shield are two entirely distinct, separate non-profit corporations, chartered by the Commonwealth of Kentucky. Each Plan has its own Board of Directors, which is its governing body, although the same corporate officers serve both Plans.

Under these charters, Blue Cross and Blue Shield operate under the supervision of the Department of Insurance of Kentucky. Every contract sold by Blue Cross and/or Blue Shield must be approved by the Department of Insurance and the contract cannot be changed in any way without approval. What this means is that Blue Cross and Blue Shield cannot add or delete covered benefits in a contract, or increase or decrease dues (premiums), without the approval of the Department.

The Department of Insurance regularly audits the entire operation of Blue Cross and Blue Shield, a process that requires from two to four months to complete. In addition to making certain that the Plans are being operated in a fiscally responsible manner, and that we pay all of the benefits to which the subscriber is entitled under his contract, the Department makes equally certain that benefits are not paid for services which are not included in the contract, and for which the individual has not paid dues.

A second point that is frequently misunderstood is the fact that Blue Cross and Blue Shield are not insurance companies. They are pre-payment plans! Individuals who subscribe to Blue Cross and Blue Shield, either through individual contracts or through a group, pre-pay to the Plans a prescribed amount each month in order to protect themselves against the cost of health and medical care to the extent provided in the contract they buy. Blue Cross and Blue Shield, then, are merely the custodians of the subscribers' money. That money is returned to the subscribers in the form of payments to providers for covered services after deductions for overhead and the maintenance of a reasonable reserve. Blue Cross pays out 95% of the subscriber's dues in benefits, while Blue Shield returns approximately 90% of the dues. There are no stockholders, no dividends, and no one makes a profit on the Blue Cross and Blue Shield operation; so it is a bit distressing to hear a patient or a physician complain bitterly that we are trying to save Blue Cross and Blue Shield money when a claim must be denied.

Blue Cross and Blue Shield are big business. In addition to our regular business, the Plans serve as Intermediary for Part A of Medicare, and as administrator of the CHAMPUS Program and the Federal Employees Program in Kentucky. During the year 1973, the Plans processed more than 1,660,000 claims and disbursed over \$200,000,000 in benefits to the providers of health care. That comes to an average of about 6,400 claims and \$785,000 for each working day throughout the year.

It is the ever increasing size and complexity of Blue Cross and Blue Shield operations in recent years that led management to the realization that greater medical input and judgement was needed in many areas of the business, and resulted in the transition from one part-time physician to three full-

†Read at the Annual Meeting of the Kentucky Academy of Family Physicians, in Louisville on May 16, 1974

*Director of Medical Services and **Medical Consultants, Kentucky Blue Cross and Blue Shield

time physicians on the staff in the past two years. It is our hope that we may contribute to the efficiency of the operation and to the satisfaction of the subscribers as well as the providers of health care.

In spite of these rather impressive examples of performance and service, the single most common reason for criticism and dissatisfaction with Blue Cross and Blue Shield is the rejection of a claim for benefits. It does little good to tell an individual whose claim has been denied, or his physician, that the rejection rate on claims for hospital benefits under Medicare is less than 0.6%, or that less than 0.5% of the Blue Cross claims, under all of the various contracts, are rejected for medical reasons. As far as this individual is concerned, his rejection rate is 100%.

The rejection of a claim is not taken lightly by the Plans. It is company policy in the adjudication of claims, to always give the patient the benefit of the doubt. As pointed out earlier, however, we are legally obligated to adhere strictly to the terms of the individual's contract in processing his claim.

There are a number of reasons why a claim might be administratively rejected: the contract was not in force at the time the service was rendered, the patient was not covered under the subscriber's contract, dental services which are not covered except when related to an accident, and the like. These denials are usually uncontested.

The cases which give rise to the greatest clamor are (1) rejections of admissions primarily for diagnostic services or for physical therapy, and (2) rejections because the condition which led to hospitalization existed on or prior to the effective date of the contract. The denial of claims for these reasons requires medical judgement and so it seems appropriate at this time to briefly outline the system of review to which Blue Cross claims are subjected.

The first level of review is a technical one, conducted by clerks who verify the validity of the data which appears on the claim submitted by the hospital. The second level of review is carried out by registered nurses. The nurse correlates the final diagnoses with average length of stay parameters for those diagnoses, and with the charges listed on the claim for the various ancillary services which the patient received. On the basis of this review, the nurses approve approximately 95% of the claims and they are processed for payment without further ado. In roughly 5% of the cases, the nurse is not satisfied that the patient received covered services on the basis of the claim alone, so she sends for medical records. As a rule, she will request the history and physical, orders and progress notes, and discharge summary.

When these records are received, they are reviewed by the same nurse who initially reviewed the claim. If she is then satisfied that covered services were received, the claim is approved for payment. If not, the file is referred for the third level of review—by a physician.

It should be emphasized that up to this point in the review process, no claim has been rejected. Only a physician can reject a claim for medical reasons.

When the physician reviews the medical records, he may request additional records from the hospital or

contact the attending physician for additional information, before making a determination that the services provided to the patient were covered or were not covered under the terms of the individual's contract. He may, under certain circumstances, request the opinion and recommendations of the hospital utilization review committee, or refer the case through the peer review mechanism functioning under the Kentucky Foundation for Medical Care. It should be borne in mind, however, that such requests for committee review are requests for medical opinion and judgement only, and that the final decision, as it relates to the terms of the individual's contract, must, by law, remain with Blue Cross.

What is the nature of the cases which constitute the bulk of those referred by the nurses for medical review by the Plan physicians? Most of them, by far, are those involving the question of admissions primarily for diagnostic studies. A few may represent cases with extended length of stay and/or inappropriate services in relation to the diagnosis. We would hasten to point out, however, that Blue Cross does not partially deny claims on the basis of excessive length of stay or inappropriate services except upon the recommendation of a review committee.

What triggers the suspicion that a claim may represent an admission primarily for diagnostic studies? Simply stated, it is this: a short hospital stay (one, two, or three days) with high ancillary charges in the diagnostic area such as laboratory and x-ray, and low ancillary charges in the therapeutic area such as medication, operating room, etc.

In adjudicating such a claim, certain criteria are applied. If the condition of the patient demanded hospitalization (e.g., crushing chest pain, high fever, syncopal attack), the claim is paid; if the diagnostic studies themselves require the hospital setting (e.g., angiography, encephalogram, myelogram), the claim is paid; if the patient required and received definitive therapy, including merely observation in some instances, the claim is paid. If, on the other hand, the medical records show that the patient had chronic complaints, was not acutely ill, had normal vital signs and essentially negative physical examination, that the diagnostic laboratory and x-ray studies were of such a nature that they can be, and frequently are, performed on an outpatient basis, and that the patient received treatment which did not require the hospital setting, then such a claim must be classed as an admission primarily for diagnostic studies.

In an effort to be absolutely fair to the subscriber in those cases where the medical records meet the criteria of an admission for diagnostic services, we instituted last September the practice of writing a letter to the attending physician **before** we reject the claim, requesting that he provide us with any possible additional medical information that might justify paying the claim. It is regrettable that at least 50% of the time, we receive no response whatsoever to our letter. In some instances, the physician's letter, written some weeks after the patient's discharge and without referring to the hospital record, contains statements which have no apparent relationship to the

hospitalization in question. Such contradictory statements certainly do not facilitate the fair and equitable adjudication of claims.

Once such a claim is rejected, and the patient complains to his physician, we almost invariably receive a letter from the physician attempting to justify what he failed to document at the time the patient was under his care in the hospital. We always try to accept the word of the physician at face value, but it is sometimes quite difficult to ignore the contradictions with which we are confronted.

Rejections for pre-existing conditions are in a different category. When a patient with a Blue Cross card is admitted to the hospital, the hospital immediately sends an Admission Notice to the Plan. The necessary data is fed into the computer and, if the contract has been in effect for less than 12 months, the computer prints out the fact that the "waiting period" has not been completed. A registered nurse then reviews the Admission Notice, including the diagnosis, the effective date of the Blue Cross coverage, and the admission date to the hospital, and attempts to determine whether or not the condition which led to hospitalization existed prior to the effective date. If the admission resulted from an accident, an acute myocardial infarction, or some other such acute illness, the admission will immediately be approved. If, on the other hand, the admitting diagnosis is chronic arthritis, congestive heart failure, chronic obstructive pulmonary disease, or the like, and the policy has been in effect only a few weeks, the nurse will request medical records before approval is given. The records are reviewed by the nurse and by a physician before approval is ever denied. Here again, we sometimes have difficulty in obtaining pertinent information from the attending physician. In cases of chronic illness, the physician sometimes tends to give the date of the most recent acute flare-up rather than the date of the actual onset of the disease and the fact that the patient has been under treatment for the condition for several months. It would be rather unusual, for instance, for a patient to be admitted for a pyloroplasty and vagotomy for chronic duodenal ulcer with the onset of the condition being just five days prior to admission. It is a bit surprising, too, when the attending physician tells us that he has no knowledge of the patient's illness or symptoms prior to the date on which the patient first consulted him. And then there is the occasional physician who refuses to give us any medical information relating to his care of the patient, for fear that he may be accused of assisting a third party in the processing of a claim. He says that if we want any information, we should get it from the patient, who is our subscriber. This attitude, I submit, evidences a great and abiding interest in the welfare of his patient.

Blue Shield is an entirely different ballgame. It is not only the largest area of our business, in the number of claims processed, but it is by far the most complex operation with which we have ever been associated. With the great variety of Blue Shield contracts, including indemnity, usual and customary, CHAMPUS, and the Federal Employees Program, in

addition to the variables negotiated into numerous group contracts on both the local and national level, the processing of a Blue Shield claim is a time-consuming and complicated matter. The indemnity contracts, of course, call for the payment of a fixed amount for any given procedure. Usual and customary claims, in 98% of the cases, are paid routinely since the fees fall within the 90th percentile guidelines. Those which fall outside the guidelines are usually resolved by a personal contact with the physician and only 0.2% of the cases have to go to Peer Review.

An exhaustive study is now underway, aimed at a greater recognition of the advances in medicine with special reference to diagnostic medicine and the newer and more complicated surgical and medical procedures now being carried out. It is to be hoped that this study will lead to a marked update in the coverage provided by a Blue Shield contract in the not too distant future. The implementation of such an update, however, will be a difficult and complicated undertaking since any new contract must be approved by the Department of Insurance, sold to the individual and group subscribers, and will undoubtedly call for a significant increase in Blue Shield dues.

Blue Cross serves as Intermediary for Part A of the Medicare Program in Kentucky. This service is provided by Blue Cross under contract with the Department of Health, Education and Welfare at cost, there being no profit coming to the Plan for this operation.

During the year 1973, the Medicare Division processed more than 300,000 claims for inpatient, outpatient, skilled nursing facility, home health, and other ancillary services and disbursed more than \$85,000,000 to the providers of these services.

Medicare claims are processed in a manner similar to that described for Blue Cross claims, the majority being paid by registered nurses after the second level of review, and none being denied except by a physician after careful medical review. There is one important distinction to keep in mind, however, and that is the fact that the Medicare Program operates under the regulations and guidelines provided by the Federal Government. These regulations delineate rather clearly the definition of covered care under the Medicare Program. The administration of Blue Cross claims, on the other hand, is governed by the terms of the contract which the individual has purchased.

The regulations governing the payment of Medicare benefits for inpatient care, for instance, state that the services provided to the patient must be medically reasonable and necessary for the diagnosis and/or treatment of the illness or injury for which the patient was hospitalized, and that the condition of the patient must be such as to require (1) continuous skilled nursing care, (2) the constant availability of a physician, and (3) the sophisticated facilities and equipment usually found only in a hospital. Unless the medical records document the fact that the care required and received by the patient meets these criteria, the claim must be denied.

Recent amendments to the Medicare Law have placed additional pressure on the physician to make

certain that he does not keep his patients in the hospital after they reach the point that they no longer require acute hospital care. It is imperative that practicing physicians should become thoroughly acquainted with the provisions of the "presumed provider" regulations since they have very significant implications for the hospital, the patient and the physician.

This discussion is an attempt to shed some light on the involvement of Blue Cross and Blue Shield in the lives of all of you, your patients and, in fact, all Kentuckians. It is to be hoped that you have gained some insight into the reasons why you sometimes become unhappy with us, as do your patients.

Blue Cross and Blue Shield offer many levels of benefits and we cannot force any individual to update his coverage even though the policy he first purchased in 1950 is woefully inadequate in 1974. Neither can Blue Cross and Blue Shield make certain

that each of the 1.3 million individuals who are covered by these contracts reads—or understands—the Certificate.

But you, as intelligent, well-educated physicians, enjoying the confidence of your patients, and with their best interests at heart, can assist them in understanding the limitations of their contracts and, knowing how the costs of hospital and medical care have risen in recent years, you can encourage them to increase the level of benefits to a more realistic standard, rather than to expect to receive benefits which they have not purchased.

Remember—Blue Cross and Blue Shield are third-party payors which belong to your patients who are the subscribers—and not to anyone else! Any assistance you give to Blue Cross and Blue Shield in the adjudication of their claims is a service to your patients.

SEPT. 30, 1974

PROGRAM

Sept. 30

MONDAY

7 30 a.m. REGISTRATION
Read House

9 00 a.m. William H. Masters, M.D.,
Virginia E. Johnson, St. Louis, Mo., "SEX AND SEXUALITY"

10 00 a.m. COFFEE BREAK
Exhibit Visitation

10 30 a.m. Louis C. Lundstrom, General Motors Corp., Warren, Mich., "THE STATUS OF AUTO SAFETY" (GM ESV exhibit)

11 00 a.m. Joseph D. Godfrey, M.D., Buffalo, N.Y., "WHAT'S NEW IN SPORTS MEDICINE?"

1 00 p.m. LUNCHEON
Continental Room

SPEAKER:
Joseph D. Godfrey, M.D., Team Physician, Buffalo Bills, "CONTACT"

2 00 p.m. to 4 00 p.m. SYMPOSIUM
"SEXUAL DYSFUNCTION"

William H. Masters, M.D., and
Virginia E. Johnson
Reproductive Biology Research Foundation
St. Louis, Mo.
(Symposium open to physicians, physician's wives and R.N.'s)

TENNESSEE VALLEY MEDICAL ASSEMBLY

THE READ HOUSE


CHATTANOOGA, TENNESSEE

Sept. 30 & Oct. 1, 1974

TECHNICAL exhibits

T.V.M.A. 1974 proudly presents an attractive, informative and well programmed display of technical exhibits. The professional representatives who staff them are capable of furnishing background information on any products they have brought to the assembly. Plan to spend some time each day viewing the exhibits.

EXHIBITS WILL BE OPEN FROM 9:00 A.M. UNTIL 4:00 P.M.



OCT. 1, 1974

PROGRAM

Oct. 1

TUESDAY

8 00 a.m. REGISTRATION
Read House

9 00 a.m. Wm. E. Thornton, M.D., NASA, Houston, Tex., "WHAT'S NEW—SKYWARD?"

9 30 a.m. C. A. Harvey, M.D., Naval Submarine Med. Res. Lab., Groton, Conn., "PACKAGED ENVIRONMENTS—MAN'S PROGRESS IN SUB-AQUATIC SURVIVAL"

10 00 a.m. COFFEE BREAK
Exhibit Visitation

10 30 a.m. Peter J. Gazes, M.D., Charleston, S.C., "WHAT'S NEW IN MEDICAL OFFICE EMERGENCIES?"

11 00 a.m. E. C. Wong, Master Acupuncturist, Denver, Colo., "ACUPUNCTURE AS AN ADJUNCT"

11 30 a.m. Arthur Taub, M.D., Ph.D., New Haven, Conn., "ACUPUNCTURE—AN HISTORICAL ANALYSIS AND PHYSIOLOGICAL CRITIQUE"

1 00 p.m. LUNCHEON
Continental Room

SPEAKER:
W. J. Lewis, M.D., Chairman, AMPAC Board, Dayton, Ohio, "POLITICAL ACTION—AN EFFECTIVE LONG-RANGE PLAN"

2 00 p.m. to 4 00 p.m. SYMPOSIUM
"NEW MEDICAL HORIZONS IN SPACE AND UNDER THE SEA"

Wm. E. Thornton, M.D., NASA, Houston, Texas
C. A. Harvey, M.D., Naval Submarine Medical Research Laboratory, Groton, Connecticut

Make reservations with Chattanooga Convention & Visitors Bureau
399 McCallie Ave., Chattanooga, Tn. 37402

Medical Association • September 1974 497



EDITORIALS



Z-D-T '76

ZERO death from tetanus by 1976 is a realistic goal and valuable present to our country as we celebrate our 200th anniversary.

The incidence of tetanus in the United States is diminishing but the mortality remains high. There will be about 100 patients with tetanus this year; some cases will not be reported. Half of the patients will die in agony. The mortality rate has not changed much recently; the importance of prevention is obvious. By proper care, tetanus is totally preventable.

Immunizations against tetanus and several other diseases should be required before a child enters school. High school students should continue their immunization by a booster before graduation. Immunization against tetanus should be required before a driver's license is issued and in athletic programs. Protection against tetanus took a giant step forward in our country with universal military training. Now we must rely on other methods of achieving total tetanus immunization. Immunization

should be started as part of pre-employment evaluation and booster doses given at appropriate intervals thereafter. All young women should be immunized to protect themselves and their newly-born children. The infected umbilicus may result in death from tetanus. Our senior citizens should be protected through their organizations by mass immunization programs. Emergency medical personnel must be diligent in wound debridement and tetanus immunization.

Guidelines have been published by the American College of Surgeons, the American Academy of Pediatrics and the Public Health Service. Supplies for tetanus immunization are available at little or no cost through government facilities.

Prevention of disease is the primary goal of medicine. The list of controlled diseases is impressive. By a broad program of immunization and wound care, tetanus can be added to that list by 1976.

WILLIAM T. RUMAGE, JR., M.D.

A Beckon to the Beacons

Time slips by. Another September is upon us, with its school days, resumption of monthly medical meetings, and the bittersweet feel of oncoming winter. To every thing there is a season, and a time for every purpose under the heaven. In this benign season let us retain a bit of summer leisure, combine same with the honest work of fall, and join together to praise our profession, and our Commonwealth. I speak, O Learned Reader, of the Annual Meeting of KMA, to be held at Bluegrass Convention Center, Louisville, September 24-26.

While there's no possibility that you personally could need the educational program offered (after all, any Journal reader—particular-

ly, any Journal Editorial reader!—must be the most intelligent of men), think what a noble opportunity such a meeting presents for you to educate others. It's your **duty** to come, mingle, and lend the blessings of your presence to other physicians less gifted. If, in passing, your charm, grace, and intellect are recognized—why, what could be more natural and more fitting? To paraphrase Matthew, you can't be a beacon if your light don't shine—and goodness knows we need plenty of you beacons.

So come to the meeting—we'll look for you there, and we'll recognize you by your incandescent glow! Shine on.

WH



Synthroid[®]

(sodium levothyroxine)

Supplied: **Tablets:** 0.025 mg., 0.05 mg., 0.1 mg., 0.15 mg., 0.2 mg., 0.3 mg., 0.5 mg., scored and color-coded in bottles of 100, 500, and 1000.

Injection: 500 mcg. lyophilized active ingredient and 10 mg. of Mannitol, U.S.P., in 10 ml. single-dose vial, with 5 ml. vial of Sodium Chloride Injection, U.S.P., as a diluent.

Synthroid-T₄



FLINT LABORATORIES
DIVISION OF TRAVENOL LABORATORIES, INC.
Deerfield, Illinois 60015



The Antacid Analogy



Indications: Pro-Banthine is effective as adjunctive therapy in the treatment of peptic ulcer. Dosage must be adjusted to the individual.

Contraindications: Glaucoma, obstructive disease of the gastrointestinal tract, obstructive uropathy, intestinal atony, toxic megacolon, hiatal hernia associated with reflux esophagitis, or unstable cardiovascular adjustment in acute hemorrhage.

Warnings: Patients with severe cardiac disease should be given this medication with caution.

Fever and possibly heat stroke may occur due to anhidrosis.

In theory a curare-like action may occur, with loss of voluntary muscle

control. For such patients prompt and continuing artificial should be applied until the drug effect has been exhausted.

Diarrhea in an ileostomy patient may indicate obstruction; possibility should be considered before administering Pro-Banthine.

Precautions: Since varying degrees of urinary hesitancy may be experienced by elderly males with prostatic hypertrophy, such patients should be advised to micturate at the time of taking the medication.

Overdosage should be avoided in patients severely ill with colitis.

Adverse Reactions: Varying degrees of drying of salivary secretions.

Therapeutic comparisons in peptic ulcer.

Acids have only one mode of action to relieve ulcer pain...

Pro-Banthine® has four propantheline bromide

Acids:

Antacids relieve ulcer pain by neutralizing gastric acid. Their action is relatively short-lived and they have only one mode of action.

Pro-Banthine:

Pro-Banthine suppresses gastric acid secretion. The antisecretory properties of propantheline bromide are well established. By effectively blocking vagotonic impulses Pro-Banthine suppresses gastric secretion to reduce both total and free acid.

Pro-Banthine helps relieve pain.

Pro-Banthine relieves ulcer pain by reducing gastric acid secretion and the motility and spasm of the gastrointestinal tract.

Pro-Banthine reduces acidity without subsequent acid rebound. The capacity of Pro-Banthine to reduce the secretion of total and free acid in the stomach has been demonstrated in scores of studies. None has demonstrated any significant evidence of acid rebound.

Pro-Banthine activity lasts about six hours. The effect of a single therapeutic dose (15 mg.) of Pro-Banthine lasts about six hours.* Pro-Banthine P.A.®, the prolonged-acting form, is active from 8 to 12 hours. Thus Pro-Banthine may be used to suppress acid, spasm, and pain around the clock, even during the sleeping hours when antacids, to be effective, must be taken almost hourly.

*Innes, I. R., and Nickerson, M., in Goodman, L. S., and Gilman, A. (editors): The Pharmacological Basis of Therapeutics, ed. 4, New York, The Macmillan Company, 1970, p. 537.

Pro-Banthine complements and enhances the action of antacids.

SEARLE

Searle & Co.
San Juan, Puerto Rico 00936

Address medical inquiries to: G. D. Searle & Co.
Medical Department, Box 5110, Chicago, Ill. 60680

as well as mydriasis and blurred vision. In addition the following reactions have been reported: nervousness, drowsiness, dizziness, headache, loss of the sense of taste, nausea, vomiting, constipation and allergic dermatitis.

Dosage and Administration: The recommended daily dosage for adult is one 15-mg. tablet with meals and two at bedtime. Subsequent adjustment to the patient's requirements and tolerance must be

Pro-Banthine P.A.—Each tablet of Pro-Banthine P.A. (propantheline bromide) contains 30 mg. of the drug in the form of sustained-release or

timed-release beads; on ingestion about half of the drug is released within an hour and the remainder continuously as earlier increments are metabolized. Thus the result is even, high-level anticholinergic activity maintained all day and all night in most patients with only two tablets daily. Some patients may require one tablet every eight hours.

The contraindications and precautions applicable to Pro-Banthine 15 mg. should be observed.

How Supplied: Pro-Banthine is supplied as tablets of 15 and 7.5 mg., as prolonged-acting tablets of 30 mg. and, for parenteral use, as serum-type vials of 30 mg.

The Role of the Detail Man

"I may be prejudiced, but very much in favor of the detail man I meet. Most of them are knowledgeable about the drugs they promote and can be a great help in acquiring me with new medication."

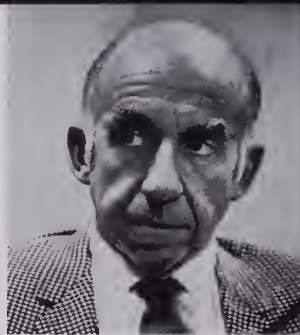
Family Physician's Perception

I think that most general practitioners in this area feel a little bit about the detail man. Over the years I have gotten to know many of the men who visit me regularly. In turn they have become aware of my particular interests and the nature of my practice. They, therefore, limit their discussion as far as possible to the areas of interest to me. Since I usually see the representative again in future visits, it is in his best interest to supply me with the most honest, factual, as well as up-to-date information about his products.



Dr. Willard Gobbell
Family Physician
Encino, California

Dr. Jeremiah Stamler
Chairman
Department of Community
Health and Preventive
Medicine, and Dingman
Professor of Cardiology
Northwestern University
Medical School



"In the total picture of dealing with health problems in this country there is a potential for detail men to play a meaningful role."

The Positive Influence

My contact with representatives and salesmen of the pharmaceutical industry is the type of contact that people in a medical or research people, and academic people have and that's in all lines on a somewhat different level than that of the practicing physician.

Let me touch on how I personally perceive the role of the sales representative. These men reach large numbers of health professionals. Thus they could be—at times actually are—dissensors of useful information. They could consistently serve a real educational function in their ability to discuss their products.

At present they do distribute printed material, brochures and pamphlets—some of it scientifically sound and therefore truly useful—as well as some excellent material produced by the pharmaceutical industry. When they function

Opinion
&
Dialogue

Source of Information?
es, with certain reservations. Average sales representative great fund of information the drug products he is responsible for. He is usually able to answer most questions fully and accurately. He can also supply lists of articles that contain a great deal of information. Here, exercise some caution. I suspect most of the statements and opinions that I find in the literature and studies which come from the larger teaching facilities. Without saying that a physician should also rely on other sources for his information on pharmacology.

Quality of Sales Representatives
Ideally, a candidate for the position as a sales representative of a pharmaceutical company should be a graduate pharmacist with a questioning mind. I don't think this is possible in every case, but it becomes the responsibility

of the pharmaceutical company to train these individuals comprehensively. It is of very great importance that the detail man's knowledge of the product he represents be constantly reviewed as well as up-dated. This phase of the sales representative's education should be a major responsibility of the medical department of the pharmaceutical company.

I am certain that most of these companies take special care to give their detail men a great deal of information about the products they produce — information about indications, contraindications, side effects and precautions. Yet, although most of the detail men are well informed, some, unfortunately, are not. It might be helpful if sales representatives were reassessed every few years to determine whether or not they are able to fulfill their important function. Incidentally, I feel the same way about periodic assessments of everyone

in the health care field, whether they be general practitioners, surgeons or salesmen.

Value of Sampling

I personally am in favor of limited sampling. I do not use sampling in order to perform clinical testing of a drug. I feel that drug testing should rightly be left to the pharmacology researcher and to the large teaching institutions where such testing can be done in a controlled environment.

I do not use samples as a "starter dose" for my patients. I do, however, find samples of drugs to be of value in that they permit me to see what the particular medication looks like. I get to see the various forms of the particular medication at first hand, and if it is in a liquid form I take the time to taste it. In that way I am able to give my patients more complete information about the particular medications that I prescribe for them.

ly they are indeed useful; particularly in the fact that they provide broadly based educational material and serve not just "pushers" of their drugs.

Other Side of the Coin

Obviously, the pharmaceutical companies are not producing all educational material as a labor of love — they are in the business of selling drugs for profit. In this regard, selfish and improperly motivated sales representative can have a negative influence on the practicing physician, both by presenting a one-sided picture of his product, and by encouraging the physician to depend too heavily on the sales representative for his total therapy. In many ways, the salesman has often distorted objective reality and defined his potential role as an educator.

Industry Responsibility

Since the detail man must be a reliable information resource as well as a representative of his particular pharmaceutical company, he should be carefully selected and

thoroughly trained. That training, of course, must be an ongoing one. There must be a continuing battle within and with the pharmaceutical industry for high quality not only in the selection and training of its sales representatives, but also in the development of all of its promotional and educational material.

The industry must be ready to accept constructive as well as corrective criticism from experts in the field and consumer spokesmen, and be willing to accept independent peer review. The better educated and prepared the salesman is, the more medically accurate his materials, the better off the pharmaceutical industry, health professionals and the public — i.e., the patients — will be.

Physician Responsibility

The practicing physician is in constant need of up-dated information on therapeutics, including drugs. He should and does make use of drug information and answers to specific questions supplied by the pharmaceutical representative. However, that informa-

tion must not be his main source of continuing education. The practitioner must keep up with what is current by making use of scientific journals, refresher courses, and information received at scientific meetings.

The practicing physician not only has the right, but has the responsibility to demand that the pharmaceutical company and its representatives supply a high level of valid and useful information. I feel certain that if such a high level is demanded by the physician as well as the public, this demand will be met by an alert and concerned pharmaceutical industry.

From my experience, my impression is that sectors of the pharmaceutical industry are indeed ethical. I challenge the industry as a whole to live up to that word in its finest sense.

*Pharmaceutical
Manufacturers Association
1155 Fifteenth Street, N.W.
Washington, D. C. 20005*





ORGANIZATION SECTION



1974 KMA Annual Meeting Is At Hand

The scientific program of the 1974 KMA Annual Meeting will get underway Tuesday morning, September 24, with presentations on "The Sexes." All general sessions will be held in the Bluegrass Convention Center in Louisville (at the intersection of I-64 and Hurstbourne Lane).

Other topics to be discussed during the three-day session will be "Hypertension," "Fetal and Neonatal Health," and "Food Facts and Fads."

The President's Luncheon, to be held at 11:50 a.m., Wednesday, September 25, in Belle Hall at the Bluegrass Convention Center, will feature the Honorable Julian M. Carroll, Lieutenant Governor of the Commonwealth, speaking on "Healing the Impatient Public." KMA award presentations and the installation of the 1974-75 KMA President, Hoyt D. Gardner, M.D., will also highlight this year's President's Luncheon. Tickets will be on sale at various locations at the Ramada Inn and Bluegrass Convention Center.

Eighteen specialty groups will meet on Tuesday afternoon and Thursday morning and afternoon. Meeting on Tuesday, September 24, will be the groups representing anesthesiology, chest medicine, dermatology, emergency medicine, pathology, pediatrics, plastic and reconstructive surgery, urology, and surgery. Groups representing the ENT Society, family medicine, industrial medicine, obstetrics and gynecology, orthopedics, American College of Physicians, psychiatry, public health, and radiology will meet on Thursday, September 26.

The House of Delegates will meet on Monday, September 23, at 9:00 a.m. at Ramada Inn, and again on Wednesday, September 25, at 7:00 p.m. at Bluegrass Convention Center.

Other features of the 1974 Annual Meeting include the annual Convention of the Woman's Auxiliary to KMA on September 23-25, the KEMPAC Seminar on Monday evening, September 23, and many alumni reunions of the University of Louisville School of Medicine.

Complete details of this year's Annual Meeting are featured in the August issue of *The Journal of KMA*.

1974 U.S. Senate Candidates To Speak At KEMPAC Meeting

Kentucky's two candidates for the U.S. Senate will be the featured speakers at the Twelfth Political Seminar and Banquet of KEMPAC on Monday, September 23.



Senator Cook



Governor Ford

Senator Marlow W. Cook and Governor Wendell H. Ford will discuss "Forecast: Health Legislation" at the Seminar program to be held at Louisville's Bluegrass Convention Center.

KEMPAC Board Chairman, Carl Cooper, M.D., Bedford, has announced that a reception followed by a dinner and the Seminar will begin at 6:00 p.m. CDJ in the Belle Hall.

Senator Cook, a Republican from Louisville, was elected to the U.S. Senate in November, 1968. He has served in state government and was the Jefferson County Judge for two terms.

Governor Ford, a Democrat from Owensboro, was elected Governor of the Commonwealth of Kentucky in November, 1971. He has served the state also as State Senator and as Lieutenant Governor.

The KEMPAC Board of Directors urges everyone to make plans now to attend. Tickets will be on sale Sunday and Monday, September 22 and 23, at the KMA Annual Meeting.

Membership Dues To Be Billed From KMA Headquarters Office

As reported in the June edition of *The Journal*, the KMA Board, at their April 11th meeting, approved a Executive Committee recommendation that KMA begin direct billing of membership dues for the calendar year 1975 for all county medical societies except Jefferson and Fayette.

The direct billing service will be offered to county medical societies on an optional basis during the first year, and medical societies still wishing to collect their own dues may continue to do so.

Lists of names of physicians to be billed will be forwarded to the county society secretaries for their approval within this month.

Miscellaneous Meetings Planned During KMA Annual Session

Several miscellaneous meetings have been scheduled during the KMA Annual Session. The time, date and place of meeting planned at press time are listed below.

- Sunday, September 22
- 12:30 p.m.

KMA Board of Trustees, Luncheon Meeting, Grand Republic Room, Bluegrass Convention Center
- 5:00 p.m.

University of Kentucky College of Medicine, Reception, Enterprise Room, Bluegrass Convention Center

- Monday, September 23
- 9:00 a.m.

KMA House of Delegates, Meeting, Jeffersonian Rooms, Ramada Inn
- 12:30 p.m.

Reference Committee Chairmen, Luncheon, Majestic Room, Bluegrass Convention Center
- 2:00 p.m.

Reference Committee Meetings, Island Queen and Idlewild Rooms, Cincinnati Room, Eclipse Room, Grand Republic Room, Delta Queen Room, Natchez Room, Bluegrass Convention Center
- 6:00 p.m.

KEMPAC Reception, Seminar and Banquet, Belle Hall, Bluegrass Convention Center
- All Day

Kentucky Urological Society, President's Reception, Sheraton Inn at Hurstbourne Lane

- Tuesday, September 24
- 10:00 a.m.

Kentucky Diabetes Association, Meeting, Grand Republic Room, Bluegrass Convention Center
- 12:00 noon

KMA Executive Committee and Reference Committee Chairmen, Luncheon Meeting, Mark Twain Room, Ramada Inn
- 12:00 noon

Kentucky Chapter, American College of Surgeons, Luncheon Meeting, Jeffersonian and Magnolia Rooms, Ramada Inn
- 5:30 p.m.

KMA-WA-KMA Reception to Honor Presidents-Elect, Poolside, Ramada Inn
- 6:00 p.m.

Kentucky Chapter, American College of Chest Physicians, Social Hour and Dinner, Grand Republic Room, Bluegrass Convention Center. Program, 8:00 p.m., "Management of Hypertension Crises," Donald G. Vidt, M.D.
- 6:15 p.m.

Kentucky Chapter, American Academy of Pediatrics, Social Hour and Dinner, Belle Hall, Bluegrass Convention Center
- 6:30 p.m.

UL Class of '29, Social Hour and Dinner, Fairway Lounge, Big Springs Country Club

- 6:30 p.m.

UL Class of '34, Social Hour and Dinner, Natchez Room, Bluegrass Convention Center

Wednesday, September 25

- 7:30 a.m.

Insurance Advisory Committee, Kentucky Academy of Family Physicians, Breakfast, Kentucky Room, Ramada Inn
- 11:50 a.m.

KMA President's Luncheon, Belle Hall, Bluegrass Convention Center
- 4:00 p.m.

KMA Board of Trustees, Meeting and Dinner, Grand Republic Room, Bluegrass Convention Center
- 7:00 p.m.

KMA House of Delegates, Meeting, Belle Hall, Bluegrass Convention Center

Thursday, September 26

- 12:00 noon

Kentucky Industrial Medical Association, Luncheon, Mark Twain Room, Ramada Inn
- 12:00 noon

Kentucky Obstetrical and Gynecologic Society, Luncheon, Jeffersonian Room, Ramada Inn
- 12:30 p.m.

KMA Board of Trustees, Luncheon Meeting, Magnolia Room, Ramada Inn
- 3:00 p.m.

"The Physician's Assistant," Majestic-New Orleans Room, Bluegrass Convention Center
- 6:00 p.m.

Kentucky Psychiatric Association, Social Hour and Dinner, Jeffersonian Room, Ramada Inn
- 6:30 p.m.

Kentucky Chapter, American College of Radiology, Social Hour and Dinner, Kentucky and Magnolia Rooms, Ramada Inn

September 23-24-25 Hospitality

- All Day

UL Class of '34, Hospitality Room, Ramada Inn

Vinyl Chloride and Angiosarcoma

(Continued from page 485)

25.

Achaval, A., Tauxe, W. M., and Ganbill, E. E.: Scintillation scanning of the liver. *Mayo Clin. Proc.* 40:206-215, 1965.

26.

Geddes, E. W., and Falkson G.: Malignant Hepatoma in the Bantu. *Cancer* 25:1271-1278, 1970.

27.

Flanagan, L., Jr., and Foster, J. H.: Hepatic resection for metastatic cancer. *Amer. J. Surg.* 113:551-557, 1967.

28.

El-Domeiri, A. A., Huvos, A. G., Goldsmith, H. S., and Foote, F. W., Jr., Primary Malignant Tumors of the Liver. *Cancer* 27:7-11, 1971.

29.

Philips, R., and Murikami, K.: Primary neoplasms of the liver. Results of radiation therapy. *Cancer* 13:714-720, 1960.

30.

MacMahon, H.E., Murphy, A.S., and Bates, M.F.: Endothelial-cell Sarcoma of Liver Following Thorotrast Inspections. *Am. J. Pathol.*, 23:585, 1947.

31.

Looney, W. B.: An Investigation of the Late Clinical Findings Following Thorotrast (Thorium Dioxide) Administration in: *U. S. Congress, Joint Committee on Atomic Energy, Hearings Before the Special Subcommittee on Radiation.*, U. S. Government Print. Off. Washington, D. C., 3:2297.



Why is Gantanol[®] (sulfamethoxazole) basic therapy in nonobstructed urinary tract infections?

Before prescribing, please consult complete product information, a summary of which follows:

Indications: Acute, recurrent or chronic nonobstructed urinary tract infections (primarily pyelonephritis, pyelitis and cystitis) due to susceptible organisms. **Note:** Carefully coordinate *in vitro* sulfonamide sensitivity tests with bacteriologic and clinical response; add aminobenzoic acid to follow-up culture media. The increasing frequency of resistant organisms limits the usefulness of antibacterials including sulfonamides, especially in chronic or recurrent urinary tract infections. Measure sulfonamide blood levels as variations may occur; 20 mg/100 ml should be maximum total level.

Contraindications: Sulfonamide hypersensitivity; pregnancy at term and during nursing period; infants less than two months of age.

Warnings: Safety during pregnancy has not been established. Sulfonamides should not be used for group A beta-hemolytic strep-

tococcal infections and will not eradicate sequelae (rheumatic fever, glomerulonephritis, etc.). Deaths from hypersensitivity reactions, agranulocytosis, aplastic anemia and other dyscrasias have been reported and early clinical signs (throat, fever, pallor, purpura or jaundice) may indicate blood disorders. Frequent CBC and urinalysis with microscopic examination are recommended during sulfonamide therapy. Insufficient data on children under six with chronic renal disease.

Precautions: Use cautiously in patients with impaired hepatic function, severe allergy, bronchial asthma; in glucose-6-phosphate dehydrogenase-deficient individuals in whom related hemolysis may occur. Maintain adequate fluid intake to prevent crystalluria and stone formation.

Adverse Reactions: Blood dyscrasias (agranulocytosis, aplastic anemia, thrombocytopenia, leukopenia, hemolytic ane-

Because it is considered a good choice...

- for efficacy in nonobstructed cystitis, pyelonephritis and pyelitis
- for control of susceptible *E. coli*, *Klebsiella-Aerobacter*, *Staph. aureus*, *Proteus mirabilis* and, less frequently, *Proteus vulgaris*
- for prompt antibacterial blood and urine levels in from 2 to 3 hours after initial 2-gram adult dose
- for economical around-the-clock coverage
- for maximum patient cooperation with easy-to-remember B.I.D. dosage

Basic Therapy **Gantanol[®]** (sulfamethoxazole) Tablets/Suspension (0.5 Gm) (0.5 Gm/teasp.)

prothrombinemia and methemoglobinemia); *allergic* erythema multiforme, skin eruptions, epidermal necrolysis, serum sickness, pruritus, exfoliative dermatitis, anaphylaxis, periorbital edema, conjunctival and scleral vasculitis, photosensitization, arthralgia and allergic myocarditis); *central reactions* (nausea, emesis, abdominal pains, hepatomegaly, anorexia, pancreatitis and stomatitis); *CNS reactions* (peripheral neuritis, mental depression, convulsions, hallucinations, tinnitus, vertigo and insomnia); *miscellaneous* (drug fever, chills, toxic nephrosis with oliguria and interstitial nephritis, interstitial nephritis, interstitial nephritis nodosa and L.E. phenomenon). Due to certain similarities with some goitrogens, diuretics (acetazolamide) and oral hypoglycemic agents, sulfonamides have caused instances of goiter production, diuresis and hypoglycemia as well as thyroid malignancies in rats following long-term administration. Cross-sensitivity with these agents may exist.

Dosage: Systemic sulfonamides are contraindicated in infants under 2 months of age (except adjunctively with pyrimethamine in congenital toxoplasmosis).

Usual adult dosage: 2 Gm (4 tabs or teasps.) initially, then 1 Gm b.i.d. or t.i.d. depending on severity of infection.

Usual child's dosage: 0.5 Gm (1 tab or teasps.)/20 lbs of body weight initially, then 0.25 Gm/20 lbs b.i.d. Maximum dose should not exceed 75 mg/kg/24 hrs.

Supplied: Tablets, 0.5 Gm sulfamethoxazole; Suspension, 0.5 Gm sulfamethoxazole/teaspoonful.



Roche Laboratories
Division of Hoffmann-La Roche Inc.
Nutley, N.J. 07110

In Memoriam

HARRY S. ANDREWS, M.D.
Louisville
1903-1974

Harry S. Andrews, M.D., Louisville, died on August 11 at the age of 71. A 1929 graduate of the Vanderbilt University School of Medicine, Doctor Andrews helped organize the cleft palate clinic at Kosair Crippled Children Hospital and also served as director of the clinic. He was a fellow of the American Academy of Pediatrics, of which he held numerous offices. He was a member of the Jefferson County Medical Society and the Kentucky Medical Association, as well as the Louisville and Kentucky Pediatric societies.

JOHN A. DORGER, M.D.
Fort Mitchell
1915-1974

John A. Dorger, M.D., Fort Mitchell, 58, died on May 26. Doctor Dorger, a 1941 graduate of the University of Cincinnati College of Medicine, was a general practitioner. He was a member of the Kentucky Medical Association and the Campbell-Kenton County Medical Society.

JACOB D. FARRIS, M.D.
Lexington
1891-1974

Jacob D. Farris, M.D., Lexington, died on July 29 at the age of 82. A 1928 graduate of the Vanderbilt University School of Medicine, Doctor Farris was college physician for Eastern Kentucky State Teachers College in Richmond, and in the University of Kentucky student health service. He was an emeritus member of the Kentucky Medical Association and the American Medical Association.

THOMAS J. KALMER, M.D.
Louisville
1936-1974

Thomas J. Kalmer, M.D., Louisville, 37, died on August 1. Doctor Kalmer, a pediatrician, was a 1963 graduate of the University of Louisville. He was a member of the Kentucky Medical Association and the Jefferson County Medical Society, and a fellow of the American Academy of Pediatrics.

FRANK P. STRICKLER, JR., M.D.
Louisville
1892-1974

Frank P. Strickler, Jr., M.D., Louisville, 82, died on July 20. A general surgeon, Doctor Strickler was a 1915 graduate of the University of Louisville School of Medicine. He was an emeritus member of the Jefferson County Medical Society and the Kentucky Medical Association.

Neuro-ophthalmology Course Sponsored By UKMC

The Department of Ophthalmology, University of Kentucky Medical Center, is sponsoring a 10-session course on basic neuro-ophthalmology. The course is directed toward neurologists, neurosurgeons, neuro-radiologists, ophthalmologists, internists and pediatricians.

Neuro-ophthalmology clinical case presentations will be given in conjunction with the course following the class hour, which will be on 10 Saturday mornings, 9:15-10:15 a.m., from September through June.

Jonathan D. Wirtschafter, M.D., Professor of Ophthalmology and Neurology, UKMC, is the course director.

George Culley, M.D., Hazard, has been appointed to the Institute for Children, a division of the Kentucky Department of Human Resources. The Institute advises concerned agencies on the best utilization of programs and services for children, adolescents, and the developmentally disabled.

American College of Surgeons To Offer SESAP II

The Surgical Education and Self-Assessment Program (SESAP II), the second in a series of projects to help practicing surgeons evaluate their professional knowledge, will be completed in October by the American College of Surgeons.

SESAP II is designed to provide the surgeon with an objective measure of the strengths and weaknesses in his professional knowledge, in order to continue his education appropriately. The assessment consists of 750 multiple-choice items, covering nine areas of surgery. After submitting the completed forms to the sponsoring agency, the participant receives a score and computerized ranking of his standing among his peers, along with a personalized critique.

PHYSICIANS WANTED

General Practitioner — Excellent consultation and facilities available. 100-bed general Medical/Surgical Hospital. Active Outpatient Clinic. Many benefits — Salary dependent on qualifications and experience. Exciting and challenging career in progressive Co-Educational Institution. For additional info please contact *L. G. Grossman, Warden, or Jimmie D. Hawthorne, M.D., Chief, Mental Health, Federal Correctional Institution, P.O. Box 2000, Lexington, Ky. 40507; phone (606) 255-6812.*

AN EQUAL OPPORTUNITY EMPLOYER

KMGA Schedules Golf Tournament For September 26

The Kentucky Medical Golf Association will hold its annual fall tournament on Thursday, September 26 at the Hurstbourne Country Club in Louisville.

Members of KMGA may tee off anytime on that day. A buffet and business meeting with cash bar

will be held at the Club at 6 p.m. on September 26.

Assessment for the tournament is \$20.00, which includes use of electric golf carts on the day of the tournament and annual dues for KMGA. Any physician interested in joining KMGA and playing in the fall tournament should complete the following form:

MEMBERSHIP APPLICATION

To: Kentucky Medical Golf Association
Donald L. Ware, M.D.
750 Medical Towers South
Louisville, Kentucky 40202

Date _____

Gentlemen:

Please enroll me as a member of KMGA. Enclosed is my check in the amount of \$20.00 to cover enrollment and annual dues and assessment for the 1974 Golf Tournament. (Make check payable to Kentucky Medical Golf Association.)

Name _____ M.D.

Club Affiliation _____

Address _____

Current Handicap _____

Zip Code

NEWS ITEMS

HealthCare of Louisville—Louisville's first HMO—opened its Family Health Center in July. It is located at 1809 Standard Avenue.

The Central Kentucky Blood Center in Lexington has initiated a fund-raising campaign to obtain a self-contained mobile blood drawing station. It would be the only vehicle of its type within a 200-mile radius.

PARTNER WANTED

To join Medicine, Pediatrics and OB Practice established for 23 years in South Louisville. Contact John E. Ryan, M.D. (502) 366-0515 (24 hours).

1974

Kentucky Medical Association

ANNUAL MEETING

September 24, 25, 26

Ramada Inn/Bluegrass Convention Center
Louisville

Scientific Session Themes

- "The Sexes"
- "Hypertension"
- "Fetal and neonatal Health"
- "Food Facts and Fads"

What's on your patient's face.

may be more important than his chief complaint

Patient PT.* seen on 3/29/67 shows typical lesions of moderately severe keratoses. Note residual scarring on ridge of nose from previous cryosurgical and electrosurgical procedures.



Patient PT.* seen on 6/12/67, seven weeks after discontinuation of 5% FU cream. Reaction has subsided. Residual scarring not seen except that due to prior surgery. Inflammation has cleared and face is clear of keratotic lesions.

*Data on file,
Hoffmann-La Roche
Inc., Nutley, N.J



lesions on his face solar/actinic— called "senile" keratoses... they may be premalignant.

actinic or senile keratoses

ons may be called by several names, but they
n be identified by the following characteris-
ypical lesion is flat or slightly elevated, of a
or reddish color, papular, dry, rough, adherent
ly defined. They commonly occur as multiple
iefly on the exposed portions of the skin.

nce of therapy— ivity of response

ral days of therapy with Efudex® (fluorouracil),
may begin to appear in the area of the lesions;
on usually reaches its height of unsightliness
nfort within two weeks, declining after dis-
on of therapy. This reaction occurs in affected
ce the response is so predictable, lesions that
pond should be biopsied.

table results

t with Efudex provides highly favorable cos-
lts. Incidence of scarring is low. This is par-
important with multiple facial lesions. Efudex
applied with care near the eyes, nose and mouth.

Before prescribing, please consult complete product
information, a summary of which follows:

Indications: Multiple actinic or solar keratoses.

Contraindications: Patients with known hypersensitivity
to any of its components.

Warnings: If occlusive dressing used, may increase in-
flammatory reactions in adjacent normal skin. Avoid pro-
longed exposure to ultraviolet rays. Safe use in pregnancy
not established.

Precautions: If applied with fingers, wash hands immedi-
ately. Apply with care near eyes, nose and mouth. Lesions
failing to respond or recurring should be biopsied.

Adverse Reactions: Local—pain, pruritus, hyperpigmen-
tation and burning at application site most frequent; also
dermatitis, scarring, soreness and tenderness. Also re-
ported—insomnia, stomatitis, suppuration, scaling, swell-
ing, irritability, medicinal taste, photosensitivity,
lacrimation, leukocytosis, thrombocytopenia, toxic
granulation and eosinophilia.

Dosage and Administration: Apply sufficient quantity to
cover lesion twice daily with nonmetal applicator or suit-
able glove. Usual duration of therapy is 2 to 4 weeks.

How Supplied: Solution, 10-ml drop dispensers—contain-
ing 2% or 5% fluorouracil on a weight/weight basis,
compounded with propylene glycol, tris(hydroxymethyl)-
aminomethane, hydroxypropyl cellulose, parabens (methyl
and propyl) and disodium edetate.

**Cream, 25-Gm tubes—containing 5% fluorouracil in a
vanishing cream base consisting of white petrolatum,
stearyl alcohol, propylene glycol, polysorbate 60 and
parabens (methyl and propyl).**



Roche Laboratories
Division of Hoffmann-La Roche Inc.
Nutley, N.J. 07110

is patient's lesions were resolved with

Efudex® fluorouracil/Roche®

5% cream/solution...a Roche exclusive



POSTGRADUATE OPPORTUNITIES



IN KENTUCKY

SEPTEMBER

- 21-22 Alumni Weekend,** University of Louisville School of Medicine, Health Sciences Center. Scientific sessions presented by the Departments of Family Practice, Medicine, OB-GYN, Psychiatry and Surgery, Louisville
- 24-26 KMA Annual Meeting, Ramada Inn/Bluegrass Convention Center, Louisville

OCTOBER

- 1-2 Medical Audit Team Seminar, co-sponsored by KMA and KHA. Galt House, Louisville
- 6-12 Fifth Family Medicine Review*, University of Kentucky Medical Center, Registration fee: \$195; Lexington
- 7-Nov.2 Coronary Care Nurses Training Program, King's Daughters' Hospital, Ashland. Contact: Director of Nurses, King's Daughters' Hospital, 2101 Lexington Avenue, Ashland 41101
- 11-12 Kentucky / Tennessee Regional Meeting, American College of Physicians, Ramada Inn, Lexington. Contact: Franklin B. Moosnick, M.D., 184 N. Mill Street, Lexington 40507
- 25-26 Second Annual Symposium on "Acute Respiratory Insufficiency,"** Department of Anesthesiology, University of Louisville School of Medicine, Louisville

NOVEMBER

- 2-3 Cumberland Falls KAFP Seminar, "Arthritis and Rheumatology." Corbin, Kentucky.
- 7-9 Tenth Annual Bronson Course in "Diagnostic Ophthalmic Ultrasound," Fee: \$125, University of Louisville School of Medicine, Health Sciences Center, Louisville

*For further information contact Ronald D. Hamilton, M.D., Director, Continuing Education, College of Medicine, University of Kentucky, Lexington 40506

**For further information contact Gerald D. Swim, Director, Office of Continuing Education, University of Louisville School of Medicine, Health Sciences Center, Louisville, Kentucky 40201

- 7-8 Eighth Annual Newborn Symposium, Health Sciences Center Auditorium, University of Louisville School of Medicine, Louisville. For information write Billy Andrews, M.D., 200 E. Chestnut St., Louisville 40202

IN SURROUNDING STATES

SEPTEMBER

- 20-21 "Pediatric Gastroenterology," Vanderbilt University. Program includes malabsorption, recurrent abdominal pain, G-I bleeding, neonatal nutrition, and other subjects of pediatric interest. Contact: Harry Greene, M.D., Vanderbilt University Hospital, Nashville 37203.
- 30-Oct. 1 Annual Meeting, Tennessee Valley Medical Assembly, The Read House, Chattanooga

DECEMBER

- 11-12 Conference on "Pediatric Gastroenterology," sponsored by Indiana University Medical Center. Stouffer's Indianapolis Inn.

SCHEDULE OF UPCOMING PROGRAMS ON NETWORK FOR CONTINUING MEDICAL EDUCATION

(For listing of stations, see October issue, page 676)

September 23—October 6

EARLY PROSTHETIC FITTING FOR CONGENITAL DEFECTS, Charles H. Epps, Jr., M.D., Department of Orthopedics, Howard University School of Medicine, Washington, D.C.

THERAPEUTIC ANESTHESIA FOR LOCALIZED PAIN, William C. North, M.D., Professor and Chairman, Department of Anesthesiology, University of Tennessee School of Medicine, Memphis.

SENATOR BENNETT MEETS THE PROFESSIONALS, Senator Wallace F. Bennett; Robert B. Hunter, M.D., AMA Board of Trustees; James L. Henry, M.D., President, Ohio State Medical Association; and J. Lewis Schricker, Jr., M.D., President, Utah State Medical Association.

Don't Forget — —

KMA Annual Meeting

September 24-26 — Louisville



EYES RIGHT!

...to SOUTHERN OPTICAL

LOUISVILLE Southern Optical Bldg. — 640 S. 4th
Contact Lenses — 640 S. 4th
Medical Towers Bldg., Floyd & Gray
Doctors Office Bldg., Liberty at Floyd
Medical Arts Bldg., 1169 Eastern Parkway
Professional Bldg. East, 3101 Breckinridge Lane
Medix Bldg. — Adj. S.S. Mary & Elizabeth Hosp.

ST. MATTHEWS 313 Wallace Center and 108 McArthur Drive

NEW ALBANY Professional Arts Bldg., 1919 State Street

BOWLING GREEN 524 East Main Street

OWENSBORO Doctors Bldg., 1001 Center Street



*Southern
Optical*

CHARGE ACCOUNTS
INVITED

BankAmericard
Master Charge

Professional



Protection

CONTINUOUSLY

Since 1899

**THE
MEDICAL PROTECTIVE COMPANY**

FORT WAYNE, INDIANA

LOUISVILLE OFFICE: Riley Lassiter, Representative
Suite 260

Shelbyville Road Mall Office Center
400 Sherburn Lane

Telephone: (Area Code 502) 895-5501

Mailing Address: P.O. Box 20065, Louisville, Kentucky 40220

Breast Cancer: earlier warning system

Futility and frustration beset the physician confronted with breast cancer. For the last 35 years, the survival rate has not significantly changed despite intensive educational programs aimed at earlier detection, and improvement in treatment techniques.

What is the outlook? We know the key to reducing mortality from breast cancer is in the *earliest possible* diagnosis. The stage at which breast cancer is detected is *crucial* to the outcome of treatment. By the time a lump is discovered through BSE or clinical examination, critical time may have been lost.

And we *do* have the means to achieve earlier diagnosis. We do have an *earlier* warning system. Mammography and thermography can detect breast cancer *before* a lump is discernible by palpation. To demonstrate that it is practical and feasible to detect breast cancer earlier by using these modalities, the American Cancer Society and the National Cancer Institute are funding a network of breast cancer demonstration projects. Supported by grants of \$2-million from

the ACS and \$4-million from the NIH, 20 such centers are expected to be operational across the country by the end of the year. Each will screen at no cost approximately 5,000 women annually in what is considered to be the ideal early detection program—to include clinical examination, mammography and

thermography. Each of these detection methods contributes independently to the reduction of breast cancer deaths, and none can be compensated with increased search for earlier disease.

At present we cannot prevent breast cancer, but the potential for saving lives is immense. Five-year survival surges dramatically from 53% when the axillary nodes are negative, to approximately 85% when the disease is localized, to

100% for in-situ cancer.

We have an earlier warning system. Let's use it.



Mammography



Thermography

 **american cancer society**

ALLBEE® with C Scrapbook of Vitamin Facts & Fallacies



Indian fruit-eating bat, almost all monkeys, man and the sea pig are the only mammals whose bodies lack an enzyme needed to synthesize ascorbic acid from glucose! Hence they obtain their vitamin C from exogenous sources.

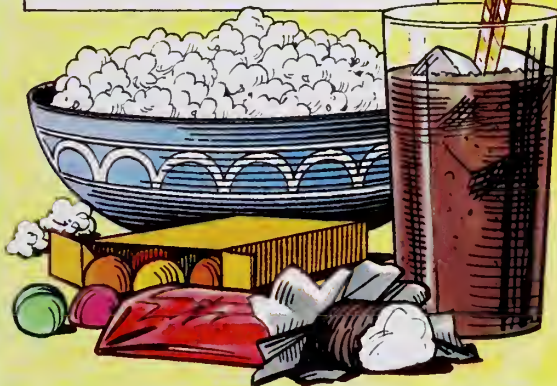


John Pinville writing about a 13th century crusade reported that his surgeons had to "cut away the dead flesh from the gums of the people to masticate their food." The disease he described was probably scurvy.



The outer leaves of cabbage and brussels sprouts contain more vitamin C than the heads. Yet, ironically, these are often trimmed by the grocer to improve appearance and enhance sales appeal! Many housewives trim them even more before cooking!

A 1965 U.S.D.A. survey revealed that American diets were lower in vitamin C than they had been 10 years earlier!



Available on your
prescription or
recommendation

ALLBEE® with C

High Potency
B-Complex and
Vitamin C
Formula



A.H. Robins Company, Richmond, Va. 23220 **A-H-ROBINS**



Spasm reactor?

Donnatal!

	each tablet, capsule or 5 cc. teaspoonful of elixir (23% alcohol)	each Donnatal No. 2	each Extentab
hyoscyamine sulfate	0.1037 mg.	0.1037 mg.	0.3111 mg.
atropine sulfate	0.0194 mg.	0.0194 mg.	0.0582 mg.
hyoscine hydrobromide	0.0065 mg.	0.0065 mg.	0.0195 mg.
phenobarbital	($\frac{1}{4}$ gr.) 16.2 mg.	($\frac{1}{2}$ gr.) 32.4 mg.	($\frac{3}{4}$ gr.) 48.6 mg.
(warning: may be habit forming)			

Brief summary. Adverse Reactions: Blurring of vision, dry mouth, difficult urination, and flushing or dryness of the skin may occur at higher dosage levels, rarely on usual dosage. Contraindications: Glaucoma; renal or hepatic disease; obstructive uropathy; prostatic hypertrophy; bladder neck obstruction due to prostatic hypertrophy; hypersensitivity to any of the ingredients.

A-H-ROBINS A H Robins Company Richmond, Virginia

Before prescribing, please consult complete product information, a summary of which follows:

Indications: Relief of anxiety and tension occurring alone or accompanying various disease states.

Contraindications: Patients with known hypersensitivity to the drug.

Warnings: Caution patients about the possible combined effects with alcohol and other CNS depressants. As with all sedating drugs, caution patients about hazardous occupations requiring complete mental alertness (e.g., operating machinery, driving). Though physiological and psychological dependence have been reported on recommended use, exercise caution in administering to alcohol-prone individuals or those who may increase dosage; withdrawal symptoms (including convulsions), following discontinuation of the drug and similar to those seen with barbiturates, have been reported. Use of any drug in pregnancy, lactation, or in women of childbearing age requires that its potential benefits be weighed against its possible hazards.

Precautions: In the elderly and debilitated, and in children over six, limit to the lowest effective dosage (initially 10 mg per day) to preclude ataxia or sedation, increasing gradually as needed and tolerated. Not recommended in children under six. Though generally well-tolerated, if combination therapy with other psychotropics seems indicated, carefully consider individual pharmacological effects, particularly in use of potent drugs such as MAO inhibitors and phenothiazines. Observe usual precautions in presence of impaired renal or hepatic function. Paradoxical reactions (e.g., excitement, stimulation and hyperactivity) have been reported in psychiatric patients and hyperactive aggressive children. Employ usual precautions in treatment of anxiety states with evidence of underlying depression; suicidal tendencies may be present and protective measures necessary. Variable effects on blood pressure have been reported very rarely in patients receiving the drug and oral contraceptives; causal relationship has not been established clinically.

Adverse Reactions: Drowsiness, dizziness, and confusion may occur, espe-

cially in the elderly and debilitated. These are reversible in most instances by proper dosage adjustment, but are also occasionally observed at the lower dosage ranges. In a few instances syncope has been reported. Also encountered are isolated instances of skin eruptions, edema, minor menstrual irregularities, nausea and constipation, extrapyramidal symptoms, increased and decreased libido—all infrequent and generally controlled with dosage reduction; changes in EEG patterns (low-voltage fast activity) may appear during and after treatment; blood dyscrasias (including agranulocytosis), jaundice and hepatic dysfunction have been reported occasionally, making periodic blood counts and liver function tests

advisable during protracted therapy.

Usual Daily Dosage: Individualize for maximum beneficial effects. *Oral—Adults:* Mild and moderate anxiety and tension, 5 or 10 mg *t.i.d.* or *q.i.d.*; severe states, 20 or 25 mg *t.i.d.* or *q.i.d.* *Geriatric patients:* 5 mg *b.i.d.* to *q.i.d.* (See Precautions.)

Supplied: Librium® (chlordiazepoxide HCl) *Capsules*, 5 mg, 10 mg and 25 mg—bottles of 100 and 500; Tel-E-Dose® packages of 100. *Libritabs®* (chlordiazepoxide) *Tablets*, 5 mg, 10 mg and 25 mg—bottles of 100 and 500. With respect to clinical activity, capsules and tablets are indistinguishable.



Roche Laboratories
Division of Hoffmann-La Roche Inc.
Nutley, N.J. 07110

to help reduce clinically significant anxiety and
thereby help improve patient receptivity

Librium® up to 100 mg daily in
(chlordiazepoxide HCl) severe anxiety

Please see following page.



Symptom of excessive anxiety:

The patient may have difficulty in accepting medical counsel.

Clinical experience has shown that some unduly anxious patients may tend to deny or minimize their illness and therefore resist seeking

or following medical advice. Through its antianxiety action, adjunctive Librium (chlordiazepoxide HCl) can often calm the emotionally tense pa-

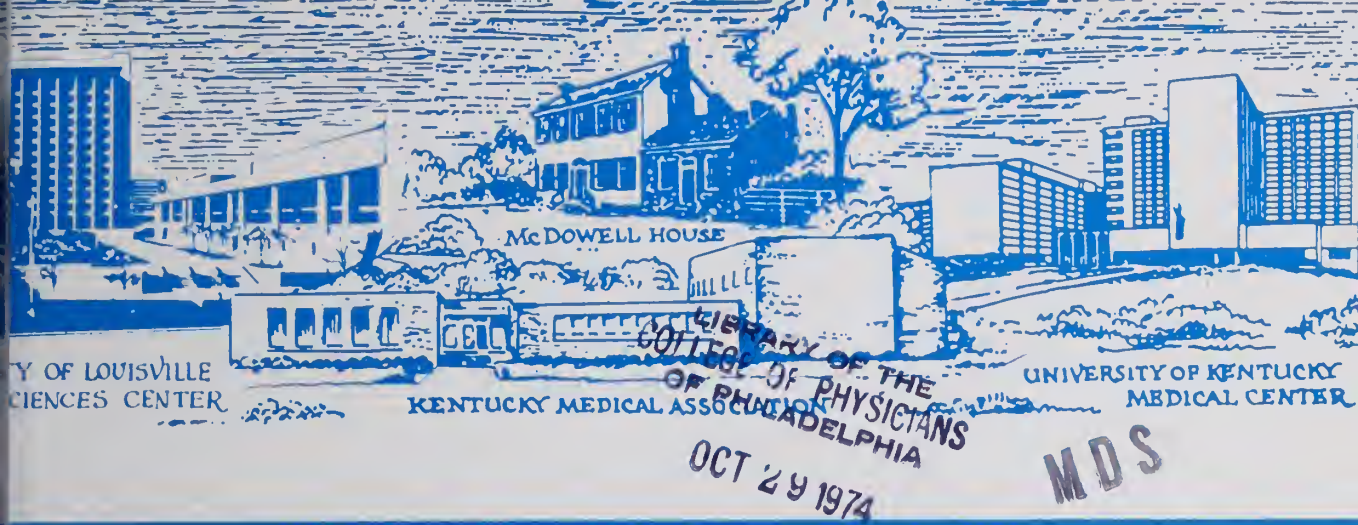
tient, thereby encouraging phy patient rapport and, on occasio making it easier for the patient accept medical counsel.

Please see reverse side
for summary of product information.

for relief of excessive anxiety

Librium® 10 mg capsu
(chlordiazepoxide HCl)

ROCHE



The Journal of The KENTUCKY Medical Association

Neurotoxic Reactions to Local Anesthetic Drugs J. Antonio Aldrete, M.D.	543
Pyoderma Gangrenosum with Myelofibrosis D.K. Gopinath, M.D., R.D. Wolfe, M.D., and K. Sabharwal, M.D.	548
Drill Bit Injury of the Brachial Artery Willis P. McKee, Jr., M.D.	551
State Licensure For Health Maintenance Organizations George F. Brockman, M.D.	555

Complete Contents on Page 525

Both after



Predominant
psychoneurotic
anxiety

Associated
depressive
symptoms

Before prescribing, please consult complete product information, a summary of which follows:

Indications: Tension and anxiety states; somatic complaints which are concomitants of emotional factors; psychoneurotic states manifested by tension, anxiety, apprehension, fatigue, depressive symptoms or agitation; symptomatic relief of acute agitation, tremor, delirium tremens and hallucinosis due to acute alcohol withdrawal; adjunctively in skeletal muscle spasm due to reflex spasm to local pathology, spasticity caused by upper motor

neuron disorders, athetosis, stiff-man syndrome, convulsive disorders (not for sole therapy).

Contraindicated: Known hypersensitivity to the drug. Children under 6 months of age. Acute narrow angle glaucoma; may be used in patients with open angle glaucoma who are receiving appropriate therapy.

Warnings: Not of value in psychotic patients. Caution against hazardous occupations requiring complete mental alertness. When used adjunctively in convulsive dis-

orders, possibility of increase in frequency and/or severity of grand mal seizures may require increased dosage of standard convulsant medication; abrupt withdrawal may be associated with temporary increase in frequency and/or severity of seizures. Advise against simultaneous ingestion of alcohol and other CNS depressants. Withdrawal symptoms (similar to those with barbiturates and alcohol) may occur following abrupt discontinuation (convulsions, tremor, abdominal and muscle cramps, vomiting and sweating). Use with caution in alcohol- and drug-addiction-prone individuals under treatment.

respond to one

ding to her major
, she is a psychoneu-
nt with severe
ut according to the
n she gives of her
art of the problem
l like depression.
ause her problem,
rimarily one of ex-
xiety, is often accom-
depressive symptom-
alium (diazepam)
e relief for both—as
ve anxiety is re-
depressive symp-
iated with it are also
ved.

are other advan-
ing Valium for the
ent of psychoneu-
ty with secondary
symptoms: the
rapeutic effect of
pronounced and
s means that im-
et is usually apparent
ent within a few
r than in a week or

two, although it may take
longer in some patients. In ad-
dition, Valium (diazepam) is
generally well tolerated; as
with most CNS-acting agents,
caution patients against haz-
ardous occupations requiring
complete mental alertness.

Also, because the psycho-
neurotic patient's symptoms
are often intensified at bed-
time, Valium can offer an addi-
tional benefit. An *h.s.* dose
added to the *b.i.d.* or *t.i.d.*
treatment regimen can relieve
the excessive anxiety and asso-
ciated depressive symptoms
and thus encourage a more
restful night's sleep.

For further information
on this subject, the following
references are provided:

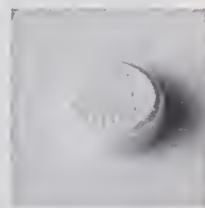
1. Henry BW, *et al*: *Dis Nerv Syst* 30:675-679, Oct 1969.
2. Hollister LE, *et al*: *Arch Gen Psychiatry* 24:273-278, Mar 1971.
3. Claghorn J: *Psychosomatics* 11:438-441, Sept-Oct 1970.

n, because of their predisposi-
elation and dependence. In
lactation or women of child-
ar, weigh potential benefit
ossible hazard.

o: If combined with other psy-
c or anticonvulsants, consider
armacology of agents em-
igs such as phenothiazines,
arbiturates, MAO inhibitors
rtidepressants may potentiate
usual precautions indicated in
sely depressed, or with latent
o or with suicidal tendencies.

Observe usual precautions in impaired
renal or hepatic function. Limit dosage to
smallest effective amount in elderly and
debilitated to preclude ataxia or over-
sedation.

Side Effects: Drowsiness, confusion, diplo-
pia, hypotension, changes in libido, nausea,
fatigue, depression, dysarthria, jaundice,
skin rash, ataxia, constipation, headache,
incontinence, changes in salivation,
slurred speech, tremor, vertigo, urinary
retention, blurred vision. Paradoxical re-
actions such as acute hyperexcited states,
anxiety, hallucinations, increased muscle



Valium[®] (diazepam) 2-mg, 5-mg, 10-mg tablets

in psychoneurotic
anxiety states
with associated
depressive symptoms

spasticity, insomnia, rage, sleep disturb-
ances, stimulation have been reported;
should these occur, discontinue drug. Iso-
lated reports of neutropenia, jaundice;
periodic blood counts and liver function
tests advisable during long-term therapy.



Roche Laboratories
Division of Hoffmann-La Roche Inc.
Nutley, New Jersey 07110

If you think you have to own the equipment you need for expansion,



you haven't talked to the First leasing men.

Private practice, clinic, medical center... we can plan a leasing "package" for you.

With lease schedules favorable to your specific requirements.

Leasing keeps your credit lines free for other needs. And avoids putting working capital into heavy down payments.

It can be simpler, less costly, with write-offs, than ownership.

Call or write Don Deters, Leasing I, First National Bank in St. Louis. Find out how you can put our leasing experience to work. Profitably.

First National Bank in St. Louis

Member FDIC

St. Louis, Mo. 63166 • (314) 342-6530



EDITOR

Walter I. Hume, Jr., M.D.

ASSOCIATE EDITOR

Henry B. Asmon, M.D.

ASSISTANT EDITORS

John S. Llewellyn, M.D.

A. Evon Overstreet, M.D.

G. Randolph Schradt, M.D.

EXECUTIVE EDITOR

Robert G. Cax

MANAGING EDITOR

Jerry E. Mahoney

ASSISTANT MANAGING EDITOR

Dionne Lobes

DEPARTMENTAL EDITORS

Paul C. Grider, Jr., M.D., Scientific

John W. Greene, Jr., M.D., Maternal
Mortality

BOARD OF CONSULTANTS
ON SCIENTIFIC ARTICLES

Term Expires July 1, 1977

Lawrence C. Goldberg, M.D.

Carl H. Scatt, M.D.

Richard K. Jelsma, M.D.

James A. Meyers, M.D.

Russell R. Rice, M.D.

William J. Collis, M.D.

Charles E. Dobbs, M.D.

Term Expires July 1, 1976

Gehrig M. Robinsan, M.D.

Mark S. Sexter, M.D.

Thomas E. Baath, M.D.

Patrick L. Jasper, M.D.

Oscar W. Thompson, M.D.

Stephen C. Schindler, M.D.

Van R. Jenkins, M.D.

Jahn W. Miller, M.D.

Term Expires July 1, 1975

Robert E. Arnold, M.D.

Robert A. Hall, M.D.

Chrisman S. Jackson, Jr., M.D.

Lofayette G. Owen, M.D.

Anne Richman, M.D.

Ruel T. Rautt, M.D.

Frank G. Siman, M.D.

Leslie Van Nastrand, M.D.

Published at 3532 Ephraim McDowell Drive,
Louisville, Ky. 40205
Phone (Area Code 502) 452-6324

Subscription \$10 (Members \$5)

Single Copy \$1

Second-class postage paid at Louisville, Ken-
tucky. Acceptance for mailing at special rates
postage provided in Section 1103, act of Oct. 3,
1917, authorized May 25, 1920.

Journal of The KENTUCKY Medical Association

Contents

SCIENTIFIC ARTICLES

Neurotoxic Reactions to Local Anesthetic Drugs

J. Antonio Aldrete, M.D. 543

Pyoderma Gangrenosum with Myelofibrosis

D. K. Gopinath, M.D., R. D. Wolfe, M.D., and
K. Sabharwal, M.D. 548

Drill Bit Injury of the Brachial Artery

Willis P. McKee, Jr., M.D. 551

Acute Salicylate Intoxication—Pathogenesis Of Acid- Base Disturbances And Management (Grand Rounds)

K. K. Arora, M.D., M. K. Sridharan, M.D., R. A.
Schacht, M.D., and D. G. Martin, M.D. 552

SPECIAL ARTICLES

State Licensure For Health Maintenance Organizations

George F. Brockman, M.D. 555

Request of the Board of Medical Licensure

William P. McElwain, M.D. 531

EDITORIAL

Cogito (et Amo)—Ergo Sum 529

ORGANIZATION

Continuing Education Programs On TV To Be Listed 566

REGULAR FEATURES

President's Page 527 Maternal Mortality 557

Link in the Choin 528 Letters to the Editor 565

Pastgraduate Opportunities . 530 Buyers Guide 526

KENTUCKY MEDICAL ASSOCIATION

BOARD OF TRUSTEES—1974-1975

Officers

President	HOYT D. GARDNER 508 Watterson City Bldg., Louisville 40218 (502) 452-2684 .1975
President-Elect	DAVID A. HULL 2368 Nicholasville Rd., Lexington 40503 (606) 277-5711 ..1975
Immediate Past President	FRED C. RAINEY 912 Woodland Dr., Elizabethtown 42701 (502) 765-4147 ..1975
Vice-President	LASZLO MAKK 3101 Breckinridge Ln., Louisville 40220 (502) 459-2055 ...1975
Secretary	S. RANDOLPH SCHEEN 1163 Medical Arts Bldg., Louisville 40217 (502) 451-1661 ..1975
Treasurer	KEITH P. SMITH Medical Arts Bldg., Corbin 40701 (606) 528-3211 .....1975
Speaker, House of Delegates ...	CARL COOPER, JR. Bedford 40006 (502) 255-3282 .....1977
Vice-Speaker	RICHARD B. McELVEIN 2121 Nicholasville Rd., Lexington 40503 (606) 277-7129 ..1977
Chairman, Board of Trustees	PAUL J. PARKS 1109 State St., Bowling Green 42101 (502) 781-5111 ....1975
Vice-Chairman	EDWARD N. MAXWELL St. Joseph Infirmary, Louisville 40217 (502) 636-7561 ....1975

Delegates to the A.M.A.

J. THOS. GIANNINI, Suite 3E, Suburban Medical Plaza, Louisville (502) 897-2555	Jan. 1975-Dec. 1976
CHAS. G. BRYANT, (Alt.) 3357 Medical Arts Bldg., Louisville (502) 452-1558	Jan. 1975-Dec. 1976
FRED C. RAINEY, 912 Woodland Dr., Elizabethtown 42701 (502) 765-4147	Sept. 1974-Dec. 1975
WILLIAM W. HALL, (Alt.) Mayfair Square, Owensboro (502) 684-6255	....Jan. 1974-Dec. 1975
DAVID B. STEVENS, 2101 Nicholasville Rd., Lexington (606) 278-3481	....Jan. 1974-Dec. 1975
THOMAS L. HEAVERN, (Alt.) 2435 Alexandria, Highland Hgts. (606) 441-7600	Jan. 1974-Dec. 1975

Trustees

1st	W. EUGENE SLOAN, 2320 Broadway, Paducah 42001 (502) 443-4581	.....1977
2nd	CHARLES C. KISSINGER, Atkinson Park, Henderson 42420 (502) 826-6271	.....1976
3rd	FRANK R. PITZER, Jennie Stuart Memorial Hospital, Hopkinsville 42240 (502) 886-5221	....1977
4th	CHAS. B. SPALDING, 201 S. 5th, Bardstown, 40004 (502) 348-5968	.....1977
5th	EDWARD N. MAXWELL, St. Joseph Infirmary, Louisville 40217 (502) 636-7461	....1975
6th	PAUL J. PARKS, 1109 State St., Bowling Green 42101 (502) 781-5111	.....1975
7th	JOHN P. STEWART, 220 Steele St., Frankfort 40601 (502) 227-4718	.....1976
8th	RICHARD J. MENKE, 823 Scott St., Covington 41011 (606) 431-3048	.....1975
9th	JAMES L. FERRELL, Bourbon Medical Ctr., Paris 40361 (606) 987-2200	.....1976
10th	JAMES B. HOLLOWAY, JR., 1517 Nicholasville Rd., Lexington 40503 (606) 278-2334	....1976
11th	R. EUGENE BOWLING, 527 W. Main, Richmond 40475 (606) 623-3754	.....1975
12th	WILLIAM T. WATKINS, 500 Bourne Ave., Somerset 42501 (606) 678-8155	.....1977
13th	J. WESLEY JOHNSON, 2301 Lexington Ave., Ashland 41101 (606) 325-1151	....1976
14th	JERRY D. FRAIM, Euclid Avenue, Paintsville 41240 (606) 789-3578	.....1977
15th	HAROLD L. BUSHEY, 406 Knox St., Box 770, Barbourville 40906 (606) 546-3024	.1975

BUYERS GUIDE

OCTOBER BUYERS GUIDE FOR JOURNAL OF KMA 1974

Abbott Laboratories	559	Medical Protective Company	531
Blue Cross and Blue Shield of Kentucky	540	Pharmaceutical Manufacturers Association	562-563
Burroughs Wellcome Company	535	Rache Laboratories	522-523, 532-533, 536-537, 569-570
Jean Crutcher	564	John E. Ryan	565
Darsey Laboratories	534	G.D. Searle and Company	560-561
First National Bank in St. Louis	524	Smith, Kline and French Company	538
General Leasing Corporation	558	Southern Optical	564
Eli Lilly and Company	542	Webcon Pharmaceuticals	541
McNeil Laboratories, Inc.	539	University of Kentucky Medical Center	530

MESSAGE FROM THE PRESIDENT



NOW

Let us begin.

Medicine has never been better and our opportunities have never been greater. We are a part of the most affluent country, in the most affluent times in man's history.

There are more physicians than ever before. More people are applying for medical school, there are more quality medical schools and they are graduating larger classes.

People are living longer, healthier, more secure lives, with better retirement than in any times past.

The quality of life today is substantially superior to fifty years ago.

Our communication and visitation amongst all people is unsurpassed. We are more frequently seeing far-away places.

Prejudice is ebbing, albeit painfully slowly. Peace has returned. Democracy remains man's best hope. Our religious freedoms are accepted. There is love aglow in the land and we know we can.

Therefore, let us surge ahead to mend the breaks, attack the remaining dilemmas, and bring realism from delusion.

Let us, of our profession, lead. Let the four horsemen of our apocalypse be "Knowledge"—"Service"—"Evangelism"—"Dedication".

Yes, we together can do much. Opportunities have never been greater. Let us begin.

Hoyt Gardner

A Link in the Chain

u

x

i

e

i

a

z

y

Mrs. Richard B. McElvein, Lexington, was installed as president of the Woman's Auxiliary to KMA during the Annual Meeting, September 24-26. She will be writing "A Link in the Chain" for The Journal during the 1974-75 organizational year.



I am honored to have been elected president of the Woman's Auxiliary to the Kentucky Medical Association. It is a privilege to travel among you and get to know my adopted state and its people. Yet, in spite of the anticipation of the pleasures of this position I am ever mindful of what Betty Liljestrand, our national president, said. She challenged us with, "We have the responsibility of leading this organization for one year. This is an opportunity that counts, that will make a difference. Let's set our sights high. Reach for the stars."

Our "stars" in Kentucky are our stated objectives of assisting the KMA in its program for the advancement of medicine and health education, as well as of cultivating friendly relations and promoting mutual understanding among physicians' families. If your wife is not a member, please urge her to join us. We are a diverse group, united by only one bond—our marriage to a physician. The prestige of medicine is at a low ebb, even though the individual doctor is considered with high regard. We have tried and will continue to try to change this attitude, by working together in worthwhile pursuits, as well as by clearly and proudly identifying our individual gifts to society, as coming from a member of the KMA's auxiliary.

In addition to our usual strong support of AMA-ERF, legislative education and International Health activities, we have restructured our Program Extension Committees to include three new ones: Health Education, Family Health, and Community Health. Some exciting new projects are suggested under these titles, but they are primarily a regrouping of familiar activities which have been carried out by county auxiliaries in the past. The purpose of this change is to encourage component auxiliaries to establish their own priorities.

We will continue to support the McDowell House Shrine, so that our Kentucky heritage of a medical "First" will not be forgotten, and will continue to be both an educational and esthetic tourist attraction. Furthermore, the state auxiliary and many of our component county auxiliaries will continue to finance and administer scholarship funds for needy students in allied health careers.

All of these activities are undertaken because we care about the quality of life and we want to demonstrate this concern by working together as physicians' wives. While we emphasize service, we do not want to forget that one of our objectives is to learn to know one another. Our organization offers unique opportunities for service, self-education and social contacts that can not be found in any other group.

My hopes for the auxiliary for the coming year are best expressed by the following anonymous quotation:

Climb High
Climb Far
Your Goal the Sky
Your Aim the Star.

MRS. RICHARD B. McELVEIN, PRESIDENT
WOMAN'S AUXILIARY TO KMA



EDITORIALS

COGITO (*et* AMO) – ERGO SUM

THERE are certain words that I like to use, and to see in print. Just having them around gives me pleasure, perhaps in the expectation (usually futile) that some of their virtues will be contagious. Since in recent times some of these words have been used pretty infrequently, it seems appropriate to submit the abbreviated list, below. If you should be stimulated to consider a few additional favorite words of your own, please feel free to write them in—

Honor	Responsibility	Forgiveness
Courage	Compromise	Gratitude
Truth	Generosity	Ethics
Compassion	Taste	Religion
Tolerance	Beauty	Duty
Friendship	Simplicity	Respect
Loyalty	Pride	Unselfishness
Humor	Modesty	Virtue
Gentleness	Wonder	Decency
Intelligence	Hope	Temperance
Faith	Courtesy	Worship
Wit	Kindness	Charity
Wisdom	Justice	Family
		Love

All of these words are important; one however seems dominant, the catalyst making all the others possible—love. Love for one's surroundings, for society, for friends, wife, family, self. Love as an abstraction is easy, it's just a word. Love as a reality ought to be a part of us as individuals, a continuing process, a way of life.

Is it sophistry to speak of love in a medical journal? (It's often mentioned, of course, but usually as an aside in an article concerned basically with sex.) I suggest that love must be more than sex, that medicine must be more than physiology, and that consideration of love as a part of our profession requires not naïveté, but a high degree of intellectual and emotional maturity. Much of our confusion and concern today relates to the gradual restriction of our concept of ourselves. Generations ago, when we had little science, we compensated with much affection, and we were truly physicians; today with much science, and with a more busy and detached manner, we may become truly technicians.

Illness is more than disease—the former concept centers about an individual, whereas the latter concerns itself with a process. As Baroness recently said, "We must reaffirm the tenet that [the patient] is more than the sum of his sick cells and disordered biological processes." At the heart of such a reaffirmation lies a deep and abiding affection for humankind in general, and for patient after individual patient, in particular.

Perhaps the best reaction any of us can have, to the maelstrom surrounding us in the political and economic arena, is to slow down, see only those patients we know we can care for thoroughly and thoughtfully, and enjoy doing our jobs well, at a pace at which we and our patients can feel comfortable. The pressures of increased production do not sit well in medicine. That there are people unable to get good care may well be true, but harried doctors, diluting their efforts too widely, produce their own sets of problems. Let administrators and medical educators face the challenges of medical care distribution; in the actual practice of medicine our privilege and our duty lies in personal contact with our patients. If this contact is to be helpful, it requires from us time, and energy, — and love.

WHJ

Continuing Educational Opportunities

From The

KMA Postgraduate Medical Education Office

IN KENTUCKY

OCTOBER

- 7-Nov. 2 Coronary Care Nurse's Training Program, King's Daughters' Hospital, Ashland. Contact: Director of Nurses, King's Daughters' Hospital, 2101 Lexington Avenue, Ashland 41101
- 19 Association of Operating Room Nurses Workshop, "Review or Regret", Health Sciences Center Auditorium, University of Louisville School of Medicine
- 25-26 Second Annual Symposium on "Acute Respiratory Insufficiency",* Health Sciences Center Auditorium, Department of Anesthesiology, University of Louisville School of Medicine

NOVEMBER

- 2-3 KAFP Cumberland Falls Seminar, "Arthritis and Rheumatology", Corbin
- 7-8 Eighth Annual Newborn Symposium, "Drugs in the Newborn", Health Sciences Center Auditorium, University of Louisville School of Medicine. For information write: Billy Andrews, M.D., 200 East Chestnut St., Louisville 40202
- 7-9 Tenth Annual Bronson Course in "Diagnostic Ophthalmic Ultrasound", Health Sciences Center, University of Louisville School of Medicine. Fee: \$125

IN SURROUNDING STATES

OCTOBER

- 24-26 Southern Perinatal Association Meeting, Marriott Inn, Clarksville, Indiana. Contact: Department of Obstetrics & Gynecology, University of Louisville School of Medicine
- 30-Nov. 1 American College of Physicians course, "Innovations in the Diagnosis and Management of Acute Myocardial Infarction", Philadelphia. Contact: Registrar, Postgraduate Courses, ACP, 4200 Pine St., Philadelphia, Pa. 19104

*For further information contact Gerald D. Swim, Director, Office of Continuing Education, University of Louisville School of Medicine, Health Sciences Center, Louisville, Kentucky 40201

DECEMBER

- 11-12 Conference on "Pediatric Gastroenterology", Stouffer's Indianapolis Inn, sponsored by Indiana University Medical Center. For information contact: Joseph F. Fitzgerald, M.D., 1100 W. Michigan St., Indianapolis 46202

SCHEDULE OF UPCOMING NCME PROGRAM

(See story in Organization Section)

October 7-October 20

EARLY PROSTHETIC FITTING FOR CONGENITAL DEFECTS OF THE EXTREMITIES, with Charles H. Epps, Jr., M.D., Professor and Chief of Orthopedic Surgery, Howard University College of Medicine, Washington, D.C.

CORTICOSTEROIDS: TREATMENT FOR THREE CONNECTIVE TISSUE DISEASES, with Richard H. Ferguson, M.D., Associate Professor of Medicine and Head of a Section of Rheumatology, Mayo Clinic and Mayo Foundation, Rochester, Minnesota.

OFFICE TREATMENT OF SKIN CANCER, with Rex A. Amonette, M.D., Chemosurgeon, member of the Department of Dermatology, University of Tennessee College of Medicine, Memphis.

INTERNIST or Board Certified Family Practitioner

Tired of long hours? Want to spend more time with your family, and still practice high-quality medicine? University of Kentucky Student Health Service is looking for conscientious clinician dedicated to top quality patient care. Faculty appointment, teaching, excellent fringe benefit. Contact **Robert E. French, M.D., Annex 4, University of Kentucky Medical Center, Lexington, Kentucky (606) 233-6471.**

REQUEST OF THE BOARD OF MEDICAL LICENSURE

The Kentucky Board of Medical Licensure was created by the 1972 Kentucky General Assembly. In establishing this Board, it assumed all the medical and osteopathic functions previously handled by the State Board of Health.

The Board consists of seven voting members appointed by the Governor and the Deans of the University of Louisville and University of Kentucky medical schools as ex-officio non-voting members. The voting members of the Board are appointed from a list submitted by the Kentucky Medical Association.

It is the Board's responsibility to implement the Kentucky statutes as set forth in the state Medical Practice Act. This includes not only the processing and evaluating of all applicants seeking medical licensure in the state but also assuring to the public the professional competence and integrity of physicians holding licenses from this Board.


During the past two years, the Medical Licensure Board has worked diligently in establishing a good working liaison with the

Kentucky Medical Association and with all other allied health groups. In June of this year the Board held a special meeting with representatives of these groups for the purpose of establishing a workable mechanism whereby the Board could become better informed of irregularities involving physicians in the state.

The Licensure Board is now requesting KMA to assist them in carrying out their responsibility to the public and to the profession by notifying the Board when they know of a physician deficient in moral character or professional competence. According to the American Medical Association's Code of Conduct, the medical profession should uphold the dignity and honor of the profession and accept its self-imposed disciplines and should expose, without hesitation, illegal or unethical conduct of fellow members of the profession.

The Board will investigate any complaint, whether submitted in writing or by phone. Therefore, if you know of a physician who needs help, please notify either a member of the Board or the Medical Licensure Office.

WILLIAM P. McELWAIN, M.D.
PRESIDENT



Professional *Protection*

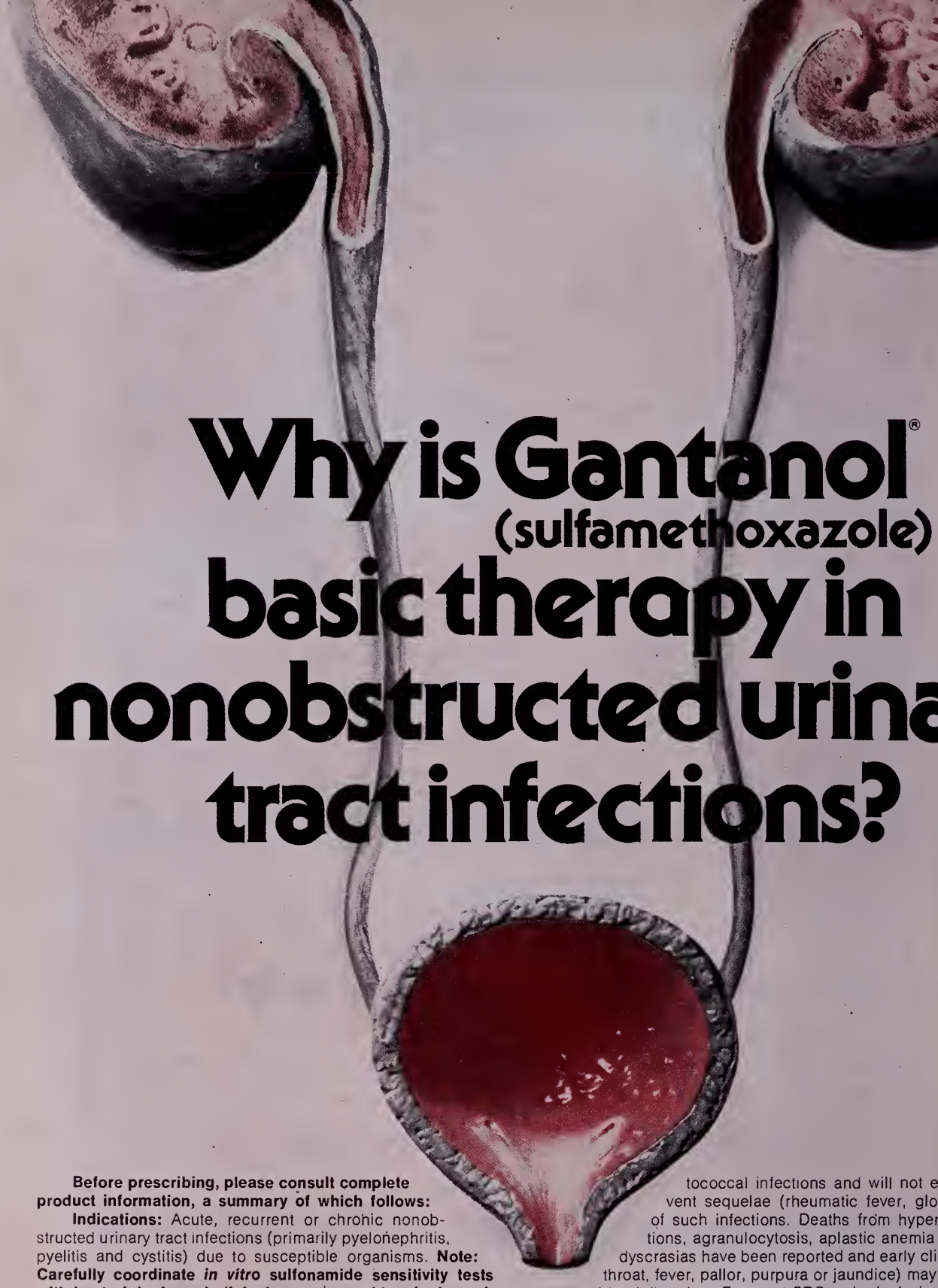
CONTINUOUSLY

Since 1899

THE MEDICAL PROTECTIVE COMPANY

FORT WAYNE, INDIANA

LOUISVILLE OFFICE: Riley Lassiter, Representative
Suite 260
Shelbyville Road Mall Office Center
400 Sherburn Lane
Telephone: (Area Code 502) 895-5501
Mailing Address: P.O. Box 20065, Louisville, Kentucky 40220



Why is Gantanol[®] (sulfamethoxazole) basic therapy in nonobstructed urinary tract infections?

Before prescribing, please consult complete product information, a summary of which follows:

Indications: Acute, recurrent or chronic nonobstructed urinary tract infections (primarily pyelonephritis, pyelitis and cystitis) due to susceptible organisms. **Note:** Carefully coordinate *in vitro* sulfonamide sensitivity tests with bacteriologic and clinical response; add aminobenzoic acid to follow-up culture media. The increasing frequency of resistant organisms limits the usefulness of antibacterials including sulfonamides, especially in chronic or recurrent urinary tract infections. Measure sulfonamide blood levels as variations may occur; 20 mg/100 ml should be maximum total level.

Contraindications: Sulfonamide hypersensitivity; pregnancy at term and during nursing period; infants less than two months of age.

Warnings: Safety during pregnancy has not been established. Sulfonamides should not be used for group A beta-hemolytic strep-

tococcal infections and will not eradicate sequelae (rheumatic fever, glomerulonephritis) of such infections. Deaths from hypersensitizations, agranulocytosis, aplastic anemia and dyscrasias have been reported and early clinical signs (throat, fever, pallor, purpura or jaundice) may indicate blood disorders. Frequent CBC and urinalysis with examination are recommended during sulfonamide therapy. Sufficient data on children under six with chronic renal disease are not available.

Precautions: Use cautiously in patients with impaired hepatic function, severe allergy, bronchial asthma; in phosphate dehydrogenase-deficient individuals in whom related hemolysis may occur. Maintain adequate fluid intake to prevent crystalluria and stone formation.

Adverse Reactions: Blood dyscrasias (agranulocytosis, thrombocytopenia, leukopenia, hemolytic a-

Because it is considered a good choice...

- for efficacy in nonobstructed cystitis, pyelonephritis and pyelitis
- for control of susceptible *E. coli*, *Klebsiella-Aerobacter*, *Staph. aureus*, *Proteus mirabilis* and, less frequently, *Proteus vulgaris*
- for prompt antibacterial blood and urine levels in from 2 to 3 hours after initial 2-gram adult dose
- for economical around-the-clock coverage
- for maximum patient cooperation with easy-to-remember B.I.D. dosage

Basic Therapy **Gantanol[®]** (sulfamethoxazole) Tablets/Suspension (0.5 Gm) (0.5 Gm/teasp.)

hypoprothrombinemia and methemoglobinemia); *allergic reactions* (erythema multiforme, skin eruptions, epidermal necrolysis, urticaria, serum sickness, pruritus, exfoliative dermatitis, anaphylactoid reactions, periorbital edema, conjunctival and scleral edema, photosensitization, arthralgia and allergic myocarditis); *gastrointestinal reactions* (nausea, emesis, abdominal pains, hepatic dysfunction, diarrhea, anorexia, pancreatitis and stomatitis); *CNS reactions* (headache, peripheral neuritis, mental depression, convulsions, hallucinations, tinnitus, vertigo and insomnia); *miscellaneous reactions* (drug fever, chills, toxic nephrosis with oliguria and azotemia, periarteritis nodosa and L.E. phenomenon). Due to certain chemical similarities with some goitrogens, diuretics (acetazolamide, thiazides) and oral hypoglycemic agents, sulfonamides have caused rare instances of goiter production, diuresis and hypoglycemia as well as thyroid malignancies in rats following long-term administration. Cross-sensitivity with these agents may exist.

Dosage: Systemic sulfonamides are contraindicated in infants under 2 months of age (except adjunctively with pyrimethamine in congenital toxoplasmosis).

Usual adult dosage: 2 Gm (4 tabs or teasps.) initially, then 1 Gm b.i.d. or t.i.d. depending on severity of infection.

Usual child's dosage: 0.5 Gm (1 tab or teasps.)/20 lbs of body weight initially, then 0.25 Gm/20 lbs b.i.d. Maximum dose should not exceed 75 mg/kg/24 hrs.

Supplied: Tablets, 0.5 Gm sulfamethoxazole; Suspension, 0.5 Gm sulfamethoxazole/teaspoonful.



Roche Laboratories
Division of Hoffmann-La Roche Inc.
Nutley, N.J. 07110

COUGH



When a cough spoils your patient's day...

Triaminic® Expectorant

Each teaspoonful (5 ml.) contains:

Triaminic, 25 mg. (phenylpropanolamine hydrochloride, 12.5 mg.;
pheniramine maleate, 6.25 mg.; pyrilamine maleate, 6.25 mg.);
glyceryl guaiacolate, 100 mg.; alcohol, 5%.

Triaminic® Expectorant with Codeine[®]

Each teaspoonful (5 ml.) contains:

Codeine phosphate, 10 mg. (Warning: May be habit forming)
Triaminic, 25 mg. (phenylpropanolamine hydrochloride, 12.5 mg.;
pheniramine maleate, 6.25 mg.; pyrilamine maleate, 6.25 mg.);
glyceryl guaiacolate, 100 mg.; alcohol, 5%.

Triaminic Expectorant with Codeine is a Schedule V controlled substance.

The Adult Expectorants that are great for kids, too

Dorsey Laboratories/Division of Sandoz-Wander, Inc./Lincoln, Nebraska 68501

Healing nicely, but it still **HURTS**

RE

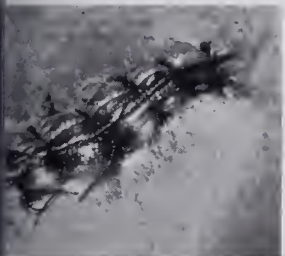
Burns



parenteral analgesia
no longer required,
Empirin Compound with
codeine usually provides the
relief needed.

RE

Sutures



Empirin Compound with
codeine is effective for
pain as well as soft tissue
injury. It provides an antitussive
effect in addition to its
analgesic effect, predictable
analgesia.

Prescribing convenience:
up to 5 refills in 6 months,
at the discretion of the physician
(unless limited by state law); by
one order in many states.

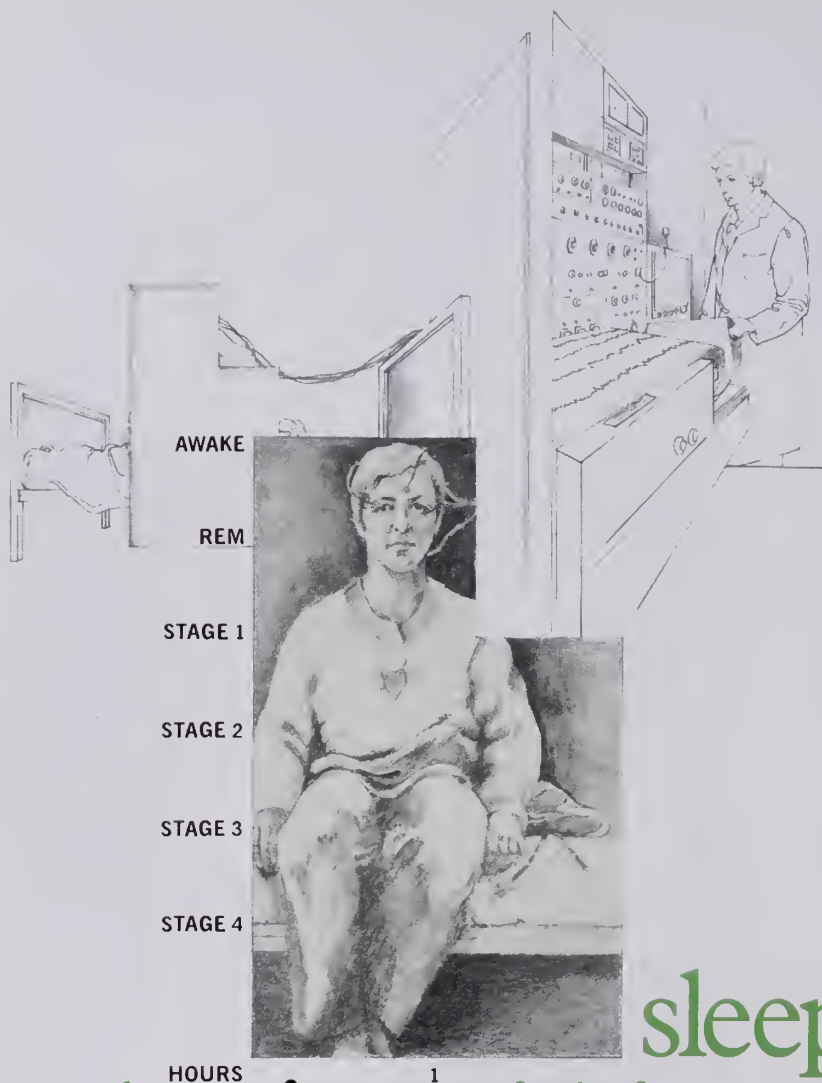
Empirin Compound with
codeine **No. 3**, codeine
phosphate* 32.4 mg. (gr. ½);
aspirin 32.4 mg. (gr. 1); codeine phosphate*
32.4 mg. (gr. 1). *Warning—
may be habit-forming. Each
tablet also contains: aspirin
32.4 mg. (gr. 1), phenacetin gr. 2½,
acetaminophen gr. ½.

Burroughs Wellcome Co.
Research Triangle Park
North Carolina 27709



EMPIRIN[®] COMPOUND c CODEINE

#3, codeine phosphate* (32.4 mg.) gr. ½
#4, codeine phosphate* (64.8 mg.) gr. 1

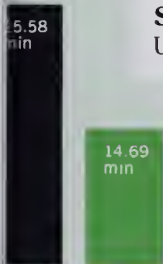


sleep
begins within
17 minutes, on average ...
an initial benefit of

Dalmane[®]
(flurazepam HCl) **proved by a**
22-night clinical study of insomnia patients
in the sleep research laboratory and at home¹

Three insomnia patients selected for difficulty falling asleep were administered Dalmane (flurazepam HCl) 30 mg for 14 consecutive nights. Placebo was given for four nights prior to and four nights after Dalmane. Physiologic tracings on Dalmane nights 1-3 showed sleep induction time averaged 13.90 minutes; on Dalmane nights 12-14, 18.80 minutes. Combined average for the 6 monitored drug nights was 16.35 minutes.¹

Time Required
to Sleep (4 Studies,
n = 2-5)



Baseline
(before Dalmane)

Dalmane
(flurazepam HCl) 30 mg

confirmed by clinical studies in four geographically separated sleep research laboratories²⁻⁵

Using a 14-night protocol involving eight insomniac and eight normal subjects, four studies confirmed the sleep-inducing effectiveness of Dalmane (flurazepam HCl) and the reproducibility of this response. On average, one 30-mg capsule induced sleep within 17 minutes. In all these studies, Dalmane induced sleep rapidly, reduced nighttime awakenings, and provided 7 to 8 hours of sleep without repeating dosage²⁻⁵

Dalmane (flurazepam HCl) induces and maintains sleep, with relative safety

Dalmane is generally well tolerated; morning "hang-over" has been relatively infrequent. While dizziness, drowsiness, lightheadedness and the like have been reported most often, particularly in the elderly and debilitated, physicians should be aware of the possibility of more serious reactions, as noted below.

When prescribing Dalmane (flurazepam HCl), please consult Complete Product Information, of which follows:

Indications: Effective in all types of insomnia characterized by difficulty in falling asleep, nocturnal awakenings and/or early morning awakening; in patients with recurring insomnia or poor sleeping habits; and in acute or chronic medical situations requiring restful sleep. Insomnia is often transient and intermittent, prolonged administration is generally unsatisfactory or not recommended.

Contraindications: Known hypersensitivity to flurazepam HCl.

Warnings: Caution patients about possible combined effects with alcohol and other CNS depressants. Caution against hazardous occupations requiring complete mental alertness (operating machinery, driving). Use in women who are or may become pregnant only when benefits have been weighed against possible hazards. Not recommended for use in children under 15 years of age. Though physical and psychological dependence have not been observed on recommended doses, use caution in administering to alcohol-prone individuals or those who might increase dosage.

Precautions: In elderly and debilitated, initial dosage should be 15 mg to preclude oversedation, dizziness and/or ataxia. Use cautiously with other drugs having hypnotic or CNS-depressant effects. Consider potential additive effects. Employ usual precautions in patients who are severely depressed, or with latent depression or other psychiatric tendencies. Periodic blood counts and liver and kidney function tests are advised during repeated therapy. Observe usual precautions in presence of impaired renal or hepatic function.

Adverse Reactions: Dizziness, drowsiness, lightheadedness, ataxia, gait disturbances, ataxia and falling have occurred, particularly in elderly debilitated patients. Severe sedation, lethargy, disorientation and other effects probably indicative of drug intolerance or overdosage, have been reported. Also reported were headache, heartburn, upset stomach, nausea, vomiting, diarrhea, constipation, GI pain, nervousness, irritability, apprehension, irritability, weakness, palpitations, muscle aches, body and joint pains and GU complaints. There have been rare occurrences of sweating, flushes, difficulty in focusing, blurred vision, burning eyes, faintness, hypotension, shortness of breath, pruritus, skin rash, dry mouth, bitter taste, excessive salivation, anorexia, euphoria, depression, slurred speech, confusion, tremor, numbness, hallucinations, and elevated SGOT, SGPT, total and conjugated bilirubin and alkaline phosphatase. Paradoxical reactions, such as excitement, stimulation and hyperactivity, have also been reported in rare instances.

Dosage: Individualize for maximum beneficial effect. *Adults:* 30 mg initially; 15 mg may suffice in some patients. *Elderly or debilitated patients:* 15 mg initially until response is determined.

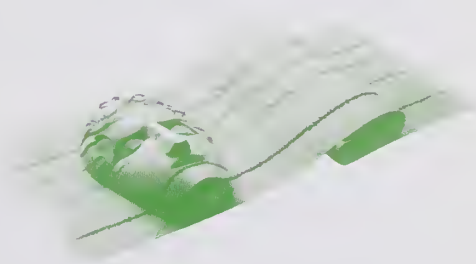
Formulation: Capsules containing 15 mg or 30 mg flurazepam HCl.

References: 1. Kales A, et al: *Arch Gen Psychiatry* 23:226-232, Sep 1970
2. Williams RL, Smith JR: The sleep laboratory in the investigation of sleep and sleep disturbances. Scientific exhibit at the 124th annual meeting of the American Psychiatric Association, Washington DC, May 3-7, 1971

3. Smith JR: Data on file, Medical Department, Hoffmann-La Roche Inc, Nutley NJ

4. Williams RL: Data on file, Medical Department, Hoffmann-La Roche Inc, Nutley NJ

5. Smith JR: Data on file, Medical Department, Hoffmann-La Roche Inc, Nutley NJ



when restful sleep
is indicated

Dalmane[®] (flurazepam HCl)

One 30-mg capsule h.s. — usual adult dosage
(15 mg may suffice in some patients).

**One 15-mg capsule h.s. — initial dosage for
elderly or debilitated patients.**

- induces sleep within 17 minutes, on average
- reduces nighttime awakenings
- sustains sleep 7 to 8 hours, on average, without repeating dosage



ROCHE LABORATORIES
Division of Hoffmann-La Roche Inc.
Nutley, New Jersey 07110

Before prescribing, see complete prescribing information in SK&F literature or PDR. The following is a brief summary.

Indications: Edema associated with congestive heart failure, cirrhosis of the liver, the nephrotic syndrome; steroid-induced and idiopathic edema; edema resistant to other diuretic therapy. Also, mild to moderate hypertension.

Contraindications: Pre-existing elevated serum potassium. Hypersensitivity to either component. Continued use in progressive renal or hepatic dysfunction or developing hyperkalemia.

Warnings: Do not use dietary potassium supplements or potassium salts unless hypokalemia develops or dietary potassium intake is markedly impaired. Enteric-coated potassium salts may cause small bowel stenosis with or without ulceration. Hyperkalemia (>5.4 mEq/L) has been reported in 4% of patients under 60 years, in 12% of patients over 60 years, and in less than 8% of patients overall. Rarely, cases have been associated with cardiac irregularities. Accordingly, check serum potassium during therapy, particularly in patients with suspected or confirmed renal insufficiency (e.g., elderly or diabetics). If hyperkalemia develops, substitute a thiazide alone. If spironolactone is used concomitantly with 'Dyazide', check serum potassium frequently — both can cause potassium retention and sometimes hyperkalemia. Two deaths have been reported in patients on such combined therapy (in one, recommended dosage was exceeded; in the other, serum electrolytes were not properly monitored). Observe patients on 'Dyazide' regularly for possible blood dyscrasias, liver damage or other idiosyncratic reactions. Blood dyscrasias have been reported in patients receiving Dyrenium (triamterene, SK&F). Rarely, leukopenia, thrombocytopenia, agranulocytosis, and aplastic anemia have been reported with the thiazides. Watch for signs of impending coma in acutely ill cirrhotics. Thiazides are reported to cross the placental barrier and appear in breast milk. This may result in fetal or neonatal hyperbilirubinemia, thrombocytopenia, altered carbohydrate metabolism and possibly other adverse reactions that have occurred in the adult. When used during pregnancy or in women who might bear children, weigh potential benefits against possible hazards to fetus.

Precautions: Do periodic serum electrolyte and BUN determinations. Do periodic hematologic studies in cirrhotics with splenomegaly. Anti-hypertensive effects may be enhanced in post-sympathectomy patients. The following may occur: hyperuricemia and gout, reversible nitrogen retention, decreasing alkali reserve with possible metabolic acidosis, hyperglycemia and glycosuria (diabetic insulin requirements may be altered), digitalis intoxication (in hypokalemia). Use cautiously in surgical patients. Concomitant use with antihypertensive agents may result in an additive hypotensive effect.

Adverse Reactions: Muscle cramps, weakness, dizziness, headache, dry mouth; anaphylaxis; rash, urticaria, photosensitivity, purpura, other dermatological conditions; nausea and vomiting (may indicate electrolyte imbalance), diarrhea, constipation, other gastrointestinal disturbances. Rarely, necrotizing vasculitis, paresis, icterus, pancreatitis, and xanthopsia have occurred with thiazides alone.

Supplied: Bottles and Single Unit Packages of 100 capsules.

SK&F CO.
Carolina, P.R. 00630
Subsidiary of
SmithKline Corporation

KEEP THE HYPERTENSIVE PATIENT ON THERAPY KEEP THERAPY SIMPLE WITH **DYAZIDE**

Trademark

Each capsule contains 50 mg. of Dyrenium® (brand of triamterene) and 25 mg. of hydrochlorothiazide.

No potassium supplements

No special K⁺ rich diets

Just 'Dyazide' once daily or twice daily




Studies have demonstrated that two prime reasons patients drop out of hypertensive therapy are: (1) the patient failed to understand directions, and (2) the regimen was overly complicated.* Dosage is simple with 'Dyazide', easily understood, once or twice daily, depending on response. There's no need to complicate the regimen with potassium supplements or unwieldy potassium-rich diets.

*E.D. Freis: The Modern Management of Hypertension, V.A. Information Bulletin, 11-35.

TO KEEP BLOOD PRESSURE DOWN AND KEEP POTASSIUM LEVELS UP

The Rx that says "Relax"



BUTISOL Sodium provides highly predictable sedative effect: minor dosage adjustments are usually all that's needed to produce the desired degree of sedation. (With 3 dosage forms and 4 strengths to make adjustments easy.)

BUTISOL Sodium offers prompt, smooth, relatively non-cumulative action: begins to work within 30 minutes...yet, because of its intermediate rate of metabolism, generally has neither a "roller-coaster" nor a "hangover" effect.

BUTISOL Sodium is remarkably well tolerated: a 30-year safety record assures you that there is little likelihood of unexpected reactions.

BUTISOL Sodium saves your patients money: costs less than half as much as most commonly prescribed sedative tranquilizers.*

These are four good reasons for prescribing BUTISOL Sodium for the many patients who need to have the pace set just a little slower. Its gentle daytime sedative action is often all that's needed to help the usually well-adjusted patient cope with temporary stress.

*Based on surveys of average daily prescription costs.

Butisol  **SODIUM**
(SODIUM BUTABARBITAL)

Contraindications: Sensitivity or idiosyncrasy to barbiturates; history of manifest or latent porphyria or marked liver impairment; respiratory disease with dyspnea or obstruction; history of addiction to sedative/hypnotic drugs; uncontrolled pain, to avoid because of possible excitement.

Precautions: Exercise caution in: moderate to severe hepatic disease; anticoagulant therapy, because of possible increased metabolism of coumarin anticoagulants; withdrawal in drug dependence or the taking of excessive doses over a long period, to avoid withdrawal symptoms; elderly or debilitated patients, to avoid possible marked excitement or depression; use with alcohol or other CNS depressants, because of combined effects.

Adverse Reactions: Slight hangover, drowsiness, lethargy, headache, skin eruptions, nausea and vomiting, hypersensitivity reactions (especially in those with asthma, urticaria, angioneurotic edema, or similar conditions).

Usual Adult Dosage: For daytime sedation, 15 mg. to 30 mg. t.i.d. or q.i.d. For hypnosis, 50 mg. to 100 mg.

Available as: Tablets, 15 mg., 30 mg., 50 mg., 100 mg.; Elixir, 30 mg. per 5 cc. (alcohol 7%). BUTICAPS® [Capsules BUTISOL Sodium (sodium butabarbital)] 15 mg., 30 mg., 50 mg., 100 mg.

McNEIL

Neil Laboratories, Inc., Fort Washington, Pa. 19034

© McN 1971

Assistance when you need it.

These specially trained Professional Relations Representatives pictured below are available to assist whenever you or one of your staff needs information regarding claims handling, payments, benefits or any other point concerning Voluntary Prepayment.

Protection.

You are invited to use this special service. FOR ASSISTANCE, WRITE OR CALL the office located in your area.

LOUISVILLE AREA



Tom North



Lynn Latta

**Blue Cross
Blue Shield
Delta Dental**
of Kentucky

Helping Kentuckians Prepay The Cost of Health Care



Tony Olinger



Jim Sparrow



J. Hartlage

3101 Bardstown Road
Louisville, 40205
Phone (502) 897-1531 or 452-1511

COVINGTON AREA

533 Pike Street
Covington, 41021
Phone (606) 291-1158

LEXINGTON AREA



Fred Compton



Jim Bingham

570 East Main Street
Lexington, 40508
Phone (606) 255-2437

OWENSBORO AREA



Bob Proffitt

909 Allen Street
Owensboro, 42302
Phone (502) 683-2459



ASHLAND AREA



Willard Chapman

710 2nd Nat'l Bank Bldg.
Ashland, 41101
Phone (606) 325-4114

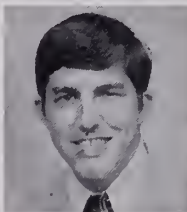
PADUCAH AREA



Ron Hopper

1301 Broadway
Paducah, 42001
Phone (502) 443-6515

BOWLING GREEN AREA



Don Chasteen

1039 College Street
Bowling Green, 42101
Phone (502) 842-4234

SOMERSET AREA



Mel Brooks

430 Ogden Street
Somerset, 42501
Phone (606) 679-2603

WANS[®]
en the
ric antiemetic
en prescribed
ntucky?"

"Because
WANS[®] Suppnettes[™]
are formulated
to rapidly and
effectively deliver
medication."

WANS[®] Suppnettes[™].

rapidly deliver effective
levels of medication rectally

release medication through
hydrophilic action—no oils or
fatty acids to interfere with
drug utilization or to cause local
irritation

no refrigeration or lubrication
other than water required

grooved for accurate half dosage

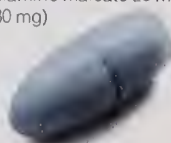
and no phenothiazines...

no local anesthetics

DESCRIPTION: WANS[®] Children Suppnettes[™] contain pyrilamine maleate 25 mg and sodium pentobarbital ½ gr (30 mg) (*Warning:* may be habit forming) in rectal suppository form. **CONTRA-INDICATIONS:** Infants under 6 months. Acute intermittent porphyria, known hypersensitivity to barbiturates or antihistamines, known previous barbiturate addiction, severe hepatic impairment, CNS injury and presence of uncontrolled pain. **WARNINGS:** Barbiturates may be habit forming. Pre-existing psychologic disturbances may be aggravated. Acquired sensitivity may result in allergic reactions. Safety in pregnancy has not been established. **PRECAUTIONS:** Use very cautiously with other sedative, hypnotic or narcotic agents. Use with caution in patients with acute hepatic disease, fever, hyperthyroidism, diabetes mellitus, severe anemia, and congestive heart failure. May impair alertness and coordination with increased accident risk. **ADVERSE REACTIONS:** Drowsiness, fatigue, vertigo, incoordination, tremor, muscle weakness, ataxia, hypotension, respiratory depression, delirium and coma. Dryness of nose, mouth, and throat, pupillary dilatation or blurred vision, urinary retention, abdominal pain, nausea, vomiting, diarrhea, and hypersensitivity reactions. Overdose or paradoxical reaction may cause excitation, insomnia, palpitation, tachycardia, convulsions and death. **DOSAGE:** Child 2-12 years: one WANS Children Suppnette rectally every 6-8 hours. Infant 6 months-2 years: ½ dosage.

WANS[®] CHILDREN

antinauseant/antiemetic pyrilamine maleate 25 mg,
sodium pentobarbital ½ gr (30 mg)

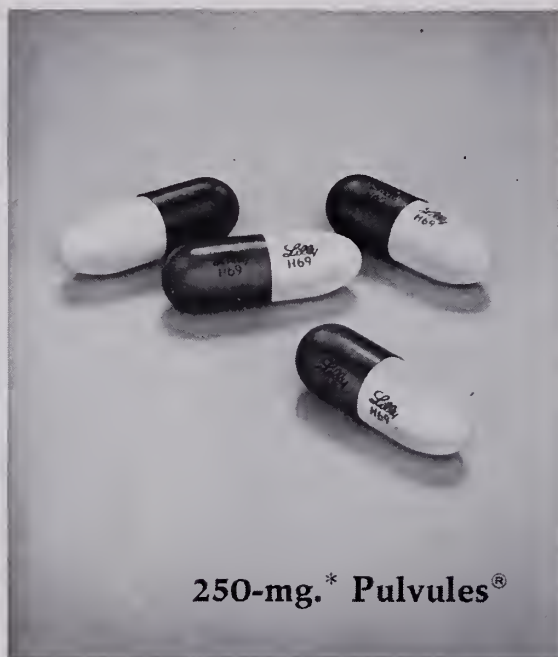


WEBCON PHARMACEUTICALS
Fort Worth, Texas 76101
Division of Alcon Laboratories, Inc.

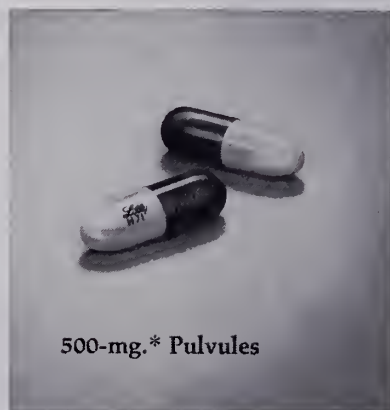
Keflex[®]

cephalexin monohydrate

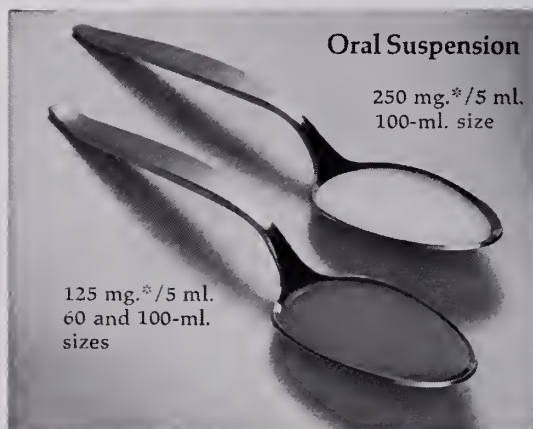
*it
makes
sense*



250-mg.* Pulvules[®]



500-mg.* Pulvules



Oral Suspension

250 mg.* / 5 ml.
100-ml. size

125 mg.* / 5 ml.
60 and 100-ml.
sizes



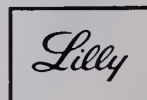
Pediatric Drops

100 mg.* / ml.
10-ml. size

*Equivalent to cephalexin.

*Additional information available
to the profession on request.*

Eli Lilly and Company • Indianapolis, Indiana 46206



400123

The JOURNAL of the Kentucky Medical Association

ISSUED MONTHLY UNDER THE DIRECTION OF THE BOARD OF TRUSTEES

VOLUME 72

OCTOBER 1974

NUMBER 10

Neurotoxic Reactions To Local Anesthetic Drugs

J. ANTONIO ALDRETE, M.D.*

Louisville, Kentucky

This is a report of clinical and experimental observations related to the administration of local anesthetics, covering clinical pharmacology and prevention and treatment of neurotoxic reactions.

I. Clinical Pharmacology

LOCAL anesthetics are among the few drugs used by practitioners of almost all medical specialties. For this reason, there is a need for understanding their pharmacology and for awareness of their toxicity as well as other side effects that can be observed in their clinical application.

After the introduction of cocaine to medical practice by Karl Koller in 1884, local anesthetic drugs have had extensive use for the prevention of pain elicited during surgical and diagnostic procedures. One could say without hesitation that practically every substance found to have numbing properties has undergone clinical trials.

Toxicity has been defined as the effects of poison or toxin.¹ In the manner that this term is applied to clinical medicine, it has been interpreted as the untoward effects, other than therapeutic, that a specific dose of one particular drug may produce at one determined moment.

To be more precise, and extrapolating this definition to local anesthetic drugs, some ex-

amples of undesirable effects that could be termed as toxic may be listed:

1. A decrease in heart rate in a patient receiving a local anesthetic in the epidural space.

2. The development of convulsions in a cirrhotic patient being treated with a similar agent for ventricular extrasystoles.

3. The appearance of twitching, numbness around the mouth and dyslalia following tourniquet release at the end of an intravenous anesthetic to the arm.

The list can be made long and varied, describing possible interpretations of toxicity of the drugs used currently as local anesthetics. Unusual responses to this group of substances may be classified as subjective, meaning the appearance of symptoms experienced by the patient; and objective, or signs that can be seen, felt or measured by an observer. Both can be influenced by previous exposure to these drugs, psychological attitude, the physical status of the patient and drug interactions.

PREVIOUS EXPOSURE: Antecedents of previous exposure to local anesthetic drugs resulting in sensitization, although a very rare occurrence, may possibly result in allergic manifestations.²

PSYCHOLOGICAL ATTITUDE: An unpleasant experience during a previous operation done under local or regional anesthesia can set the stage for a very apprehensive patient eventually to turn uncooperative and render a good block unsatisfactory. Since restlessness has been resulting from local anesthetic drug administration, differential diagnosis of the cause for restlessness may at one point be difficult.

*From the Department of Anesthesiology, University of Louisville School of Medicine

THE PATIENT'S PHYSICAL STATUS: Indeed a very important factor to consider since hemoconcentration, hypokalemia, and liver and renal failure may predispose to a greater susceptibility to toxic manifestations, due to drug distribution and degradation abnormalities present in these clinical entities. In essence, any of these factors, at one particular time, would facilitate the occurrence of higher plasma concentrations of local anesthetic drugs, than in otherwise healthy individuals having received the same dosage.

SYSTEMIC TOXICITY: Accumulation of excessively large concentrations of local anesthetic substances in arterial blood almost invariably ensues in toxic manifestations; their intensity and duration will depend on the amount of drug administered, route of entrance, how quickly it is redistributed and less on its metabolism and elimination.

Although clinical observations had been made correlating blood levels with appearance of toxic manifestations in patients who had received local anesthetic drugs, a more clear concept evolved from the classical observations made by Foldes and his associates³ in awake volunteers. For this, several local anesthetic drugs were administered by continuous intravenous infusion. Drug blood levels were correlated with appearance of signs and symptoms of systemic toxicity. The infusion of 2-chloroprocaine was best tolerated and lidocaine was least tolerated. Although the resulting functional disturbances were relatively minor, electrocardiographic tracings indicative of deteriorating cardiac activity were frequently encountered. The safety of 2-chloroprocaine was considered to be due to its more rapid hydrolysis by plasma cholinesterase. Although only four drugs were studied, nevertheless this observation set a precedent in methodology for further toxicity studies with local anesthetic drugs.

Many other studies have also compared various routes of administration. Outstanding among them is that of Bromage and Robson,⁴ who noted that venous blood concentrations of 5 mg/ml appeared to confer some sedation and abundance of consciousness whereas 10 mg/ml levels caused obvious signs of toxicity.

The highest peak blood levels with the different techniques occurred at 20 minutes from intramuscular injections, around 10 minutes

after epidural administration and about 7 minutes from tracheal installation. The appearance of toxic symptoms in patients receiving intravenous infusions depended on the rate of administration of the cumulative dose. But at any time, independent of the rate of administration, toxic symptoms appeared wherever concentrations of the local anesthetic reached 10 mg/ml.

Various dosages of intravenous lidocaine have been shown to be not only tolerated but also useful as analgesic and anesthetic supplement.⁵⁻⁷ Although the limits of safety were not delineated, in most instances a barbiturate was given concomitantly, which undoubtedly raised the threshold of toxic manifestations.

More recently Tucker and collaborators⁸ measured the arterial plasma levels resulting from epidural, caudal, intercostal nerve, brachial plexus and sciatic/femoral nerve blocks using 500 mg of mepivacaine in one single dose. The highest blood concentrations of local anesthetic drug value were found after intercostal nerve block (5-10 mg/ml). In addition, epinephrine caused a decrease, comparable to peak levels produced by higher plasma levels than those seen with 1% solution, even though the total amount of mepivacaine injected was the same. Mean peak plasma values occurred between 9 (intercostal nerve block) and 30 (femoral-sciatic nerve block) minutes for plain solutions, while for those containing epinephrine, were two-to-threefold. This report not only confirmed the protective action of epinephrine against possible toxicity, due to rapid absorption of local anesthetics into the blood stream, but also revealed that the highest plasma levels were seen after intercostal nerve blocks. Most likely, the proximity of the visceral pleural and lung facilitated the rapid absorption of the local anesthetic into the circulation.

Among the most important contributions to our current knowledge of local anesthetic drug toxicity was that of Usubiaga and collaborators who provided us with basic and clinical information on the onset of systemic toxicity resulting from intravenous infusion of procaine and lidocaine, in turn correlating it with electroencephalographic and clinical changes.⁹ Progressive sedation and lack of response observed during intravenous infusions of some local anesthetics indicated generalized depression of the

central nervous system. A subcortical trigger zone for convulsions is most likely situated either in the diencephalon or the amygdalar region of the rhinencephalon.¹⁰ These findings, as well as the interpretation that the drug-induced convulsions are mediated by the blockage of neural relays which normally inhibit amygdaloid activity, were indeed revealing. Convulsions apparently begin when the concentration of the local anesthetic bound to the neural receptors reaches a certain threshold; its decrease would depend on either or both *in situ* metabolism and reentry into the blood stream, but only the latter is significant.¹¹

MAXIMUM SAFE DOSES OF LOCAL ANESTHETICS*

DRUG	mg/kg	TOTAL MAX. SAFE DOSE FOR 70 kg ADULT (gm)	APPROX. MEAN DURATION OF ACTION (min)
Procaine (Novocaine)	15	1.0	40
Chloroprocaine (Nesacaine)	15	.14	120
Tetracaine (Pontocaine)	2	1.0	45
Lidocaine (Xylocaine)	7	.5	60
Mepivacaine (Carbocaine)	7	.5	70
Prilocaine (Citanest)	8	.6	90
Bupivacaine (Marcaine)	3	.21	280

*For major peripheral nerve block, without vasoconstrictor

Conclusions

After considering the mentioned clinical and experimental observations related to the administration of local anesthetics, we can conclude that EEG and tonic-clonic convulsions appear simultaneously when large doses of these agents enter the blood stream. Concomitantly, either depression or arrest of ventilation occurs, accompanied by a variable degree of depression of the cardiovascular system.

All things being equal, recovery would then depend on the total dose given and which drug was used, but in most instances it is complete when immediate assistance to ventilation and circulation is instituted.

I. Bibliography

1. Webster's New Collegiate Dictionary, G & C Merriam Co. 1941, p. 936.
2. Aldrete, J.A. and Johnson, D.: Evaluation of intracutaneous testing for investigation of allergy to local anesthetic. *Anesth. & Analg.* 49:1-10, 1970.
3. Foldes, F.F., Molloy, R., McNall, P.G. and Koukal, L.R.: Comparison of toxicity of intravenously-given local anesthetic agents in man. *JAMA* 172:1478-1498, 1960.
4. Bromage, P.R. and Robson, J.G.: Concentrations of lignocaine in the blood after intravenous, intramuscular epidural and endotracheal administration. *Anaesthesia* 16:461-478, 1961.
5. Steinhilber, J.E. and Howland, D.E.: Intravenously-administered lidocaine as a supplement to nitrous oxide-

thiobarbiturate anesthesia. *Anesth. & Analg.* 37:40-56, 1958.

6. DeClive-Lowe, S.G., Gray, P.W.S. and North, J.: Succinylcholine and lignocaine by continuous intravenous drip. Report of 1000 administrations. *Anaesthesia* 9:94, 1954.

7. Aldrete, J.A. and Fraser, J.G.: Intravenous lidocaine as a supplement to nitrous oxide anesthesia for radical middle ear surgery. *Can. Anaes. Soc. J.* 13:397-402, 1966.

8. Tucker, G.T., Moore, D.C., Bridenbaugh, P.O., Bridenbaugh, L.D. and Thompson, G.E.: Systemic absorption of mepivacaine in commonly-used regional block procedures. *Anesthesiology* 37:277-287, 1972.

9. Usubiaga, J.E., et al.: Local anesthetic-induced convulsions in man. An electroencephalographic study. *Anesth. & Analg.* 45:611-620, 1966.

10. Wagman, I.H., DeJong, R.H. and Prince, D.: Effects of lidocaine upon spontaneous and evoked activity within the limbic system. *Electroenceph. Clin. Neurophysiol.* 17:453, 1964.

11. Mark, L.C., Brand, L. and Goldensohn, E.S.: Recovery after procaine-induced seizures in dogs. *Electroenceph. Clin. Neurophysiol.* 16:280, 1964.

II. Prevention and Treatment

Convulsions from excessive dosages of cocaine were first described in 1868¹ and although the drugs currently used are less toxic, all nevertheless can produce convulsions in animals and man.

In clinical practice, convulsions occur whenever high plasma drug levels are present from either excessive dosage, rapid absorption of the agent into the circulation or inadvertent intravascular injection.

In 1925, Tatum and associates² first proposed the use of barbiturates for prophylaxis to prevent convulsions following administration of local anesthetic agents. Moore³ believed that barbiturates, although providing adequate sedation in certain cases, may render some patients restless to the point of being uncontrollable. As antidote against systemic toxic reactions, the inhalation of oxygen was noted to raise the threshold of toxicity in man by Moore and Bridenbaugh⁴ and confirmed in rodents by Daos et al.⁵ Since breath holding with a certain amount of airway obstruction is a feature of the convulsive bouts, it is expected that preoxygenation and/or maintenance of ventilation would assure continuous respiratory exchange.

The most prevalent pharmacological approach has been the administration of barbiturates prior to injection of local anesthetics in the hope of preventing or ameliorating seizures. It must be recognized, however, that in order to abort cocaine-induced seizures in primates, about 70 mg/kg of intravenous barbiturate are needed.

Neurotoxic Reactions To Local Anesthetic Drugs—Aldrete
INCIDENCE OF CONVULSIONS, MORTALITY, AND SURVIVAL IN PRETREATED GROUPS OF RATS

GROUP	PRETREATMENT AGENT	LOCAL ANESTHETIC AGENTS								
		Procaine			Tetracaine			Lidocaine		
		Con- vulsed*	Died*	Sur- vived*	Con- vulsed*	Died*	Sur- vived*	Con- vulsed*	Died*	Sur- vived*
1	Normal saline solution	5	3	3	5	3	3	4	3	3
2	Sodium pentobarbital	5	4	2	5	2	4	5	3	3
3	Sodium thiopental	3	2	4	4	2	4	4	2	4
4	Gamma hydroxybutyrate	5	4	2	6	4	2	6	4	2
5	Innovar	5	5	1	6	5	1	6	6	0
6	Ketamine HCl	5	4	2	4	4	2	4	3	3
7	Diazepam	0	0	6	0	0	6	0	0	6

*Number of animals in a group of six.

Reprinted by courtesy of the publisher from *Anesthesia and Analgesia* 50(1):127-130 (Jan.-Feb.), 1971.

The action of local anesthetic agents on the central nervous system was reported earlier to be a dual mechanism producing depression at lower doses and excitation at higher doses. Usubiaga and collaborators⁶ proposed that local anesthetic-produced convulsions are due to central nervous system depression rather than stimulation. Later, investigations by the same group⁷ gave proof that such seizures are triggered by depression of subcortical centers, depending on the doses used—the larger the dose, the greater the depressive effect. Thus sedation, analgesia, and convulsions would represent different degrees of the same drug effect.^{8,9} This action has been focused to limbic brain structures, particularly amygdala and hippocampus.¹⁰

In a study evaluating the protective action of several premedicants and intravenous anesthetics against convulsive doses of local anesthetic agents in rats, the previous administration of pentobarbital, thiopental, gamma-OH-butyrate, innovar and ketamine modified little or not at all the incidence of convulsions and deaths resulting from intraperitoneal injections of procaine, tetracaine and lidocaine. In contrast, the pretreatment with sleep doses of diazepam protected rats against convulsions and death from toxic doses of the same local anesthetics.¹¹

Much more sophisticated studies conducted by DeJong and Heavner¹² in cats showed that pretreatment with diazepam, 0.25 mg/kg injected intramuscularly, increased the convulsive threshold of lidocaine. Further studies conducted by this group have also shown this protection to extend to primates and confirmed their findings by electroencephalographic observations.¹³

Since benzodiazepine derivatives depress hyperexcitability of limbic elements,¹⁴ it is

logical to believe that it would protect against this potential complication of local anesthetic drug usage, since the site of action appears to be approximately the same.^{10,15}

The common use of diazepam as sedative and premedicant attests to its safety when used in prescribed dosages (0.12 mg/kg).^{16,17} It is indeed now evident that it is safer to pretreat with diazepam every patient who is to receive large doses of local anesthetic drugs. However, this does not eliminate the need to continue to follow the safety guidelines in the use of local anesthetic drugs, but it does make the clinical application of these compounds less hazardous and eventually more efficient.

These safety guidelines to be followed would be:

1. To be cognizant of the medical antecedents of the patient, especially those related to allergies and current medications.
2. Premedicate patients with diazepam.
3. Maintain constant rapport during and after the execution of the block, while the surgical or diagnostic procedure is in progress.
4. Use only local anesthetic agents that are familiar to you in regard to their pharmacological properties, limitations and side effects.
5. Never exceed recommended safe dosages.
6. Aspirate frequently and move the needle slightly during injection of local anesthetics, to avoid inadvertent intravascular injection.
7. Be prepared to treat any undue reactions with resuscitative equipment, drugs and oxygen.

Comparison of central nervous system responses to the presence of high blood levels of local anesthetic drugs usually reveals several variables which are difficult to standardize for various reasons, among them the numerous concentrations available on the market, the dif-

ferent methods of administration and the relationship of drug effects to myriad behavioral and physiologic responses.^{18,19}

When to begin treating a toxic reaction is debatable, since it may be manifested by somnolence, numbness around the mouth, dizziness, blurring of speech, restlessness and peripheral limb tremors, progressing to a generalized clonic convulsion.^{6,7,9} Occasionally the blood levels increase so suddenly that the premonitory signs are not recognized and the first evidence of toxicity is a generalized seizure.^{3,18,20}

At any rate, whenever any sign of a toxic response is heralded, prompt action is indicated. Oxygen inhalation, intravenous injection of diazepam (1 mg/kg) and readiness of resuscitative methods and drugs are to be instituted.

II. Bibliography

1. Von Oettingen, W.F.: The earliest suggestion of the use of cocaine for local anesthesia. *Ann. Med. Hist. (NS)* 5:273-280, 1933.
2. Tatum, A.L., Atkinson, A.J. and Collins, K.H.: Acute cocaine poisoning: its prophylaxis and treatment in laboratory animals. *J. Pharmacol. Ther.* 26:325-335, 1925.
3. Moore, D.C.: *Complications of Regional Anesthesia*. Springfield, Ill.: Charles C. Thomas Publisher, 1955, pp. 6-22.
4. Moore, D.C. and Bridenbaugh, L.D.: Oxygen: the antidote for systemic toxic reactions from local anesthetic drugs. *JAMA* 174:842-847, 1960.
5. Daos, F.G., Lopez, L. and Virtue, R.W.: Local anesthetic toxicity modified by oxygen and by combination of agents. *Anesthesiology* 23:755-761, 1962.

6. Usubiaga, J.E., Wikinski, J.A., Morales, R.L., et al.: Interaction of intravenously-administered procaine, lidocaine and succinylcholine in anesthetized subjects. *Anesth. & Analg.* 46:39-45, 1967.
7. Wikinski, J.A., Usubiaga, J.E., Morales, R.L., et al.: Mechanism of convulsions elicited by local anesthetic agents: I. Local anesthetic depression of electrically-induced seizures in man. *Anesth. & Analg.* 49:504-510, 1970.
8. Elliott, H.W., Quilici, G.C. and Elison, C.: Central effects of local anesthetics. *Fed. Proc.* 19:274, 1960.
9. Koppányi, T.: The sedative central analgesic and anticonvulsant actions of local anesthetics. *Amer. J. Med. Sci.* 244:646-654, 1962.
10. Tuttle, W.W. and Riblet, L.A.: Investigation of the amygdaloid and an olfactory electrographic response in the cat after toxic dosage of lidocaine. *Electroenceph. Clin. Neurophysiol.* 28:601-608, 1970.
11. Aldrete, J.A. and Daniel, W.: Evaluation of premedicants as protective agents against convulsive (LD_{50}) doses of local anesthetic agents in rats. *Anesth. & Analg.* 50:127-130, 1971.
12. deJong, R.H. and Heavner, J.E.: Diazepam prevents local anesthetic seizures. *Anesthesiology* 34:523-531, 1971.
13. deJong, R.H. and Heavner, J.E.: Local anesthetic seizure prevention: diazepam versus pentobarbital. *Anesthesiology* 36:449-457, 1972.
14. Randall, L.O., Heise, G.A., Shallek, W., et al.: Pharmacological and clinical studies on Valium, a new psychotherapeutic agent of the benzodiazepine class. *Curr. Ther. Res.* 3:405-425, 1961.
15. Usubiaga, J.E., Wikinski, J., Ferrero, R., Usubiaga, L.E., et al.: Local anesthetic-induced convulsions in man: an electroencephalographic study. *Anesth. & Analg.* 45:611, 1966.
16. Dundee, J.W. and Haslett, W.H.K.: The benzodiazepines. A review of their action and uses relative to anaesthetic practice. *Brit. J. Anaesth.* 42:217-234, 1970.
17. Jaffe, R. and Christoff, N.J.: Intravenous diazepam in seizure disorders. *Electroenceph. Clin. Neurophysiol.* 23:96, 1967.
18. Munson, E.S. and Wagman, I.H.: Acid-base changes during lidocaine-induced seizures in macaca Mulatta. *Arch. Neurol.* 20:406-412, 1969.
19. Wagman, I.H., deJong, R.H. and Prince, D.A.: Effects of lidocaine on spontaneous cortical and subcortical electrical activity: production of seizure discharges. *Arch. Neurol.* 18:277-290, 1968.
20. Munson, E.S., Gutnick, M.J. and Wagman, I.H.: Local anesthetic drug-induced seizures in rhesus monkeys. *Anesth. & Analg.* 49:986-997, 1970.

Manuscript Memos

Manuscripts should be submitted in duplicate to the style of the *Journal of KMA*, an original copy and one carbon, and typed with double spacing. Maximum length of an article should not exceed 4500 words; the Board of Consultants on Scientific Articles prefers that they be briefer than this when possible.

In submitting a manuscript, the author is requested to include a concise summary, not to exceed 35 words, to be used as a sub-title when the article is published in *The Journal*. The purpose of the summary is to create additional interest and encourage greater readership.

Footnotes and bibliographies should conform to the style of the *Quarterly Cumulative Index Medicus* published by the American Medical Association. This requires in the order given name of author, title of article, name of periodical, with volume, page, month—day of month if weekly—and year. The *Journal of the KMA* does not assume responsibility for the accuracy of references used with scientific articles.

All scientific material appearing in *The Journal* is reviewed by the Board of Consultants on Scientific Articles. The editors may use up to six illustrations with the essayist bearing the cost of all over three one-column halftones.

Arrangements for reprints of an article should be made directly with the publisher of *The Journal*, Gibbs-Inman Printing Company, 817 W. Market St., Louisville, Ky.

The bylaws of the Kentucky Medical Association provide that all scientific discussions and papers read before the KMA Annual Meeting shall be referred to the KMA *Journal* for consideration for publication. The bylaws further state that the editor or the associate editor may accept or reject these papers as it appears advisable and return them to the author if not considered suitable for publication.

Please mail your scientific articles to *The Journal of the Kentucky Medical Association*, 3532 Ephraim McDowell Drive, Louisville, Kentucky 40205.

Pyoderma Gangrenosum With Myelofibrosis

D. K. GOPINATH, M.D., R. D. WOLFE, M.D., and K. SABHARWAL, M.D.*

Louisville, Kentucky

A case of pyoderma gangrenosum has been presented, with myelofibrosis following polycythemia vera. Etiology and treatment has been discussed with a conclusion that intralesional steroids could have been a better choice instead of high doses of steroids and sulfapyridine orally.

THE diagnosis of pyoderma gangrenosum is diagnosed clinically only, depending upon the experience of the dermatologist.

This is a rare condition, the characteristics of which were described by Brunsting¹ and his associates in 1930. The typical lesion appears as a papulovesicular or pustular area which becomes rapidly necrotic. Usually one to two lesions, and sometimes a number of them, are seen in various areas of the body. They have been frequently described on the legs in association with ulcerative colitis. This type of necrotic ulcer is rapidly progressive and painful, and shows bluish, necrotizing borders. The surface of the ulcer is covered by a purulent exudate. The ulcer may extend laterally and heal centrally, leaving scar tissue.

The culture from the lesion, as a rule, grows out a mixed bacterial flora. Gay Prieto² considered a virus as the causative agent, but these findings have not been confirmed by others.

Case Report

A 62-year-old male developed mild polycythemia vera in 1961. He was treated frequently with phlebotomies. This was the only method used to treat the polycythemia. He had a partial amputation of two fingers, and also had a peptic ulcer (1967) five years prior to admission, for which he had undergone partial gastrectomy in another hospital. After this, he had been asymptomatic.

In November, 1969, he suddenly developed complete hemiplegia on the right side, which

was diagnosed as cerebral thrombosis. He did well, and improved considerably on physical therapy.

In July of 1972, the patient developed shortness of breath, weakness and pallor. He was then admitted, and the laboratory values were as follows: Hgb 9.00 gm, HCT 28.7, poly 57, stab 9%, lymph 12%, mono 1%, eos 10%, baso 4%, myelocytes 2%, metamyelocyte 2%, platelet count 606,000/mm³, sed rate 20 mm in first hour. SMA 18 revealed a high uric acid of 11.00 mg%, BUN 30 mg%, and the alk phosphate was slightly raised to 150 mu. Chest x-ray was within normal limits. Bone marrow biopsy showed a large amount of fibrous tissue proliferation, with a marked decrease in fat cells. The marrow, however, did show some activity of the granulocytic series with a large number of eosinophils present. There was depression of erythroid elements, and a large number of megacaryocytes were present. Diagnosis: Myeloproliferative process consistent with myelofibrosis. During the hospital admission, the patient received two blood transfusions. In October, the patient was readmitted for a number of problems, including possible pyoderma vegetans. The patient had work-up for anaemia; his serum iron, I. B. C., folic acid, and serum B-12 were all within normal limits. His bone marrow again showed changes consistent with myelofibrosis. Skin lesions, which had developed into ulcers on both palms, were described as looking like pyoderma vegetans. The culture taken from the ulcers grew staphylococcus, coagulase positive, which was sensitive to most antibiotics except penicillin. Patient improved with local soaks only. SMA 12



*From the Department of Internal Medicine, St. Joseph Infirmary, Louisville



showed low proteins. Immunoelectrophoresis gave the following findings: IgG 850 mg% (normal 635-1775 mg%), IgA 530 mg% (normal 106-668 mg%), and IgM 17 mg% (normal 37-154 mg%).

Patient received one packed cell transfusion and was discharged in a generally improved state. Again he was admitted in April, 1973, for uncontrolled diarrhea, extreme weakness, and new ulcers on hand and face. The ulcers were papulo-vesicular with necrotic areas. The periphery was bluish and painful. It was covered with purulent exudate. His general condition was considered very poor. He received two units of packed cells and plasma. His lesions on the hand and face were treated with large amounts of parenteral penicillin, and local antibiotics and soaks, but none of this treatment was effective. At various times his culture from these ulcers grew different pathogens. The stool cultures were negative and sigmoidoscopy was normal.

He was started on 60 mg of prednisone daily and sulfapyridine 500 mg qid, orally, on the fifth of May. His lesions were photographed before starting treatment. Patient's general condition slowly improved with transfusions and the ulcers started healing rapidly by the end of two weeks. All of them had healed by the end of that time except one on the palm, and it was improved. He felt considerably better and gradually prednisone was tapered.

On the 29th of May, the patient suddenly became hypotensive and unconscious, and died in a span of 3-4 hours. Autopsy was denied by the family. Biopsy of the lesion was done and it showed only chronic inflammatory changes.

Comments

Pyoderma gangrenosum is a condition which is very easy to recognize clinically. Approxi-

mately 40-50% of cases are described in conjunction with ulcerative colitis and other bowel diseases like regional enteritis, peptic ulcer, etc. The important lesions to be differentiated are pyogenic abscesses, Meleney's ulcer, fungal infection (blastomycosis), and necrotizing vasculitis. Once the diagnosis of pyoderma gangrenosum is confirmed, it is usually best to proceed to find out about any other underlying condition which might be associated with this condition. In our case, the diagnosis of polycythemia vera and secondary myelofibrosis had previously been established.

Harold Perry³ reported three cases of hematopoietic diseases associated with pyoderma gangrenosum. Here we report a patient who had an underlying hematologic condition, diarrhea, and an old history of documented peptic ulcer disease with all conditions having been described in association with pyoderma gangrenosum.

Maldonado⁴ described a boy with pyoderma gangrenosum who developed overt leukemia after treatment for pyoderma gangrenosum and hyperproteinemia with 6 MP therapy. These are the only four cases described in the literature where the lymphoreticular system was associated with pyoderma gangrenosum.

Paraproteinemia, with a high sedimentation rate of 145, and pyoderma gangrenosum is discussed by Rockl⁵ and his associates.

A most interesting publication by Lazarus⁶ describes four cases of pyoderma gangrenosum, altered delayed hypersensitivity, and polyarthritis. The four patients they described had either normal immunoelectrophoretic patterns, or elevated IgA, IgM, or IgG. None of the patients showed any dermal sensitivity to PPD, candida, or mumps antigens.

Findings of unusual interest are that the lymphocytes of three patients were non-specific-





ically stimulated by PHA (Phytohaemagglutinin), and two of the lymphocytes also responded to PPD in vitro. This kind of vitro and vivo disassociation in patients with anergy has been described in different conditions like Hodgkin's disease, sarcoidosis, etc. According to the authors, the significance of this phenomenon is not clear, but may reflect defects in cellular immunity. Our patient, being very debilitated, was never challenged with PPD. The immunoelectrophoresis was normal except for the low IgM, the significance of which is not known at this time.

Rossenberg⁷ called attention to the Schwartzman reaction as a possible mechanism by which pyoderma gangrenosum may result from underlying disease states that may alter the immunologic system.

Gay Prieto² and his associates believed that a virus belonging to the *varicella* group plays a significant role in the etiology of pyoderma gangrenosum. This is a possibility, but the dramatic response to steroids by most of the patients would question the virus etiology. The role of infection is unclear. All the above authors favored the etiologic factor as manifestations of immunologic disease. Although this possibility is strongly suggested, there is no conclusive evidence.

In Andrews' textbook on "Disease of the Skin",⁸ the described treatment of pyoderma gangrenosum is to give sulfapyridine or salicylazosulfapyridine. He advises to give sulfa 0.5 gm every three to four hours for 10 days followed by rest periods. The corticosteroids are also helpful, especially in severe cases, but a price may be paid.

Martin J. Cline,⁹ writing on adrenal steroids in the treatment of malignant disease, cautions against the well-known complications of steroids—peptic ulceration, osteoporosis,

and increased susceptibility to infection, especially in an already impaired host.

Alfred J. Wall,¹⁰ writing on glucocorticoids in intestinal diseases, mentioned that ulcerative colitis in the elderly presents an entirely different problem. It is often poorly tolerated by elderly patients and the side effects of glucocorticoids appear more readily.

Moschella¹¹ and Gardner¹² report cases of successful treatment of pyoderma gangrenosum with intralesional injections of triamcinolone acetone. Das¹³ describes adverse reactions during salicylazo-sulfapyridine therapy in ulcerative colitis. Some of their patients developed hemolysis, leukopenia, and agranulocytosis. Toxicity developed from 10 days to eight weeks after the treatment was started. The patients with leukopenia improved after discontinuing treatment. From the above mentioned statements, it can be readily appreciated that for each plus, there is a negative factor in the treatment of this poorly-understood condition.

The conventional treatment of pyoderma gangrenosum with high doses of steroids and sulfa is useful when pyoderma gangrenosum is associated with ulcerative colitis. But in patients suffering from leukemia or other hematological conditions, the use of high doses of steroids and sulfa is of doubtful value. Although most of the patients respond well, the toxic effects of the drugs themselves may jeopardize the longevity of the patient. We think that the best treatment of pyoderma gangrenosum would be to use intralesional steroids in pyoderma gangrenosum unassociated with ulcerative colitis. Although the patient discussed above was treated conventionally, our feeling after reviewing other literature is that the patient could have done better on intralesional steroids as previously described.

Bibliography

1. Brunsting, L.A., Goeckerman, W.H., and O'Leary, P.A.: Pyoderma (ecthyma) gangrenosum: Clinical and experimental observations in five cases occurring in adults. *Arch. Derm. Syph.* 22:655-680, 1930.
2. Gay Prieto, J., et. al.: Über die Ätiologie des sogenannten Pyoderma Gangrenosum. *Hautarzt* 17:26-34, 1966.
3. Perry, H.O., and Winkelmann, R.K.: Bullous pyoderma gangrenosum and leukemia. *Arch. Dermatol.* 106:901-905, 1972.
4. Maldonado, N., et. al.: Pyoderma gangrenosum treated with 6-Mercaptopurine and followed by acute leukemia. *J. Pediatr.* 72:409-414, 1968.
5. Rockl, H., Knedel, M., and Schropf, F.: Paraproteinemia in pyoderma gangrenosum. *Hautarzt* 15:165-171, 1964.

(Continued on Page 566)

Drill-Bit Injury of the Brachial Artery—Case Report

WILLIS P. MCKEE, JR., M.D.

Frankfort, Kentucky

An unusual vascular injury is reported in which a drill bit accidentally penetrated the neuro-vascular bundle of the left upper arm with complete severance of the brachial artery and no significant vein or nerve injury.

THE patient, a 51-year-old male, was using a chest-supported electric drill with a 5/8 inch bit, when he slipped. The drill turned, and he fell upon the bit, which penetrated his left upper arm. There was an immediate gush of blood which he controlled by holding the arm tight against his side over a wadded shirt in the axilla. He was seen in the emergency room some 30 minutes later with a cold, pulseless hand. There was a 1 cm wound of entrance on the medial aspect of the left upper arm approximately 10 cm distal to the anterior axillary fold. There was a small amount of dark ooze, but no active arterial bleeding was seen. He experienced some numbness and tingling on the radial aspect of the distal phalanx of the left index finger, but no other evidence of nerve damage could be demonstrated.

The patient was taken to the operating room 45 minutes after admission and the area of the wound explored. The brachial vein and all nerves were intact. The brachial artery was completely severed with spasm of each end and the lumens occluded by clots. The triceps brachii was injured for 2 cm lateral to the neuro-vascular bundle. The humerus was uninjured.

The ends of the artery were mobilized for 2-3 cm. It was necessary to ligate the circumflex humeral branch which was involved in the distal injury. The injured areas of the artery were trimmed and an end-to-end anastomosis performed using running sutures of 5-0 mersilene.

An excellent radial pulse was present immediately post-operatively and has been maintained. The patient had numbness to touch over the dorsal left thumb for three weeks. This gradually disappeared. Function of the involved extremity was essentially normal at four weeks and the patient was back at work.

A case of unusual vascular injury is reported. No moral is presented since the need for early recognition and repair of vascular injuries is axiomatic. However, the combination of complete brachial artery division without injury to surrounding structures is deemed worthy of note.

Notice To Contributors

Members of the Kentucky Medical Association reading papers before other organizations are asked to submit their papers to *The Journal* for consideration by the Editors for publication. Detailed instructions to contributors appear in the Scientific Section of *The Journal* under Manuscript Memos. Please forward any papers to:

Paul C. Grider, Jr., M.D., Scientific Editor
The Journal of the Kentucky Medical Association
3532 Ephraim McDowell Drive
Louisville, Kentucky 40205



GRAND ROUNDS



The University of Louisville College of Medicine

This Journal feature will be presented alternately by the University of Louisville and the University of Kentucky Departments of Medicine and Departments of Surgery. We hope to have these features revolve around subjects of immediate practical interest to the practicing physician; and, for those of us not able to attend grand rounds in the teaching centers as often as we might, we hope this will represent a bit of a refresher course.

Acute Salicylate Intoxication—Pathogenesis Of Acid-Base Disturbances And Management*

Case Presentation

A 32-year-old female was brought to the emergency room because of mental confusion. Though she talked incoherently and with difficulty because of rapid hyperpneic respirations, she was able to give a history of ingestion of an undetermined quantity of aspirin tablets ten hours prior to admission to the hospital. In the past she had made two unsuccessful attempts at suicide with barbiturates. Six weeks prior to the present admission she was discharged from the hospital after recovering from acute renal failure caused by a hypertonic saline abortion. At the time of discharge, the blood urea nitrogen was 32 mg, and serum creatinine 2.3 mg per 100 ml.

The temperature was 101°F, the pulse 126 per minute, and the respirations 48 per minute. The blood pressure was 112/70 mm Hg. She appeared normally hydrated though her tongue was dry. The lungs were clear. No abnormality was detected in examination of the heart and abdomen. The deep tendon reflexes were brisk and symmetrical. Bilateral flexor plantar responses were elicited.

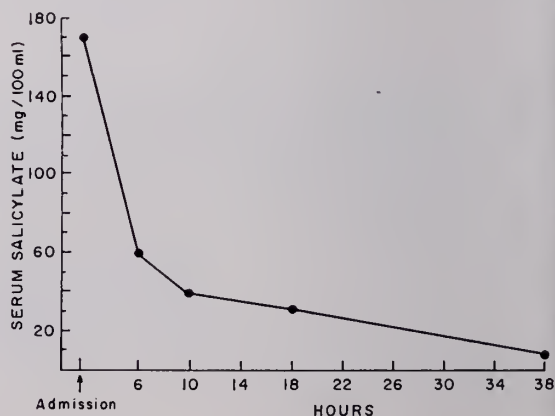
The urine gave a trace-positive test for protein; the sediment was normal. The hemoglobin was 11.3 gm%, and the white cell count was 19,000 with 92% neutrophils. The prothrombin time was 18.0 seconds (control 12.0 seconds) and the partial thromboplastin time 50.2 seconds (control 40.0 seconds). The blood urea nitrogen was 33 mg, serum creatinine 2.3 mg, and blood sugar 127 mg/100 ml. The sodium was 142 mEq, the potassium 4.6 mEq, the chloride 104 mEq, and the carbon dioxide 5.8

mEq/liter. The pO_2 in an arterial sample was 110 mm Hg, the CO_2 10.6 mm Hg, and the pH 7.25. The liver function tests, cerebrospinal fluid examination, and chest x-ray were all normal. The serum salicylate level was 169.0 mg/100 ml.

The patient received 88 mEq of sodium bicarbonate intravenously while in the emergency room. Forced alkaline diuresis was commenced with hypotonic solutions and furosemide. In addition, she received potassium supplements and intravenous Vitamin K. The blood salicylate level fell to 8.0 mg/100 ml on the second hospital day (Fig. 1). By this time the respiratory rate was 16/min and she was mentally alert.

Discussion

Of all drugs available without prescription, salicylates are used most commonly. Acute salicylate poisoning in children is usually accidental and represents 25% of all calls received by poison control centers. Adults usually in-



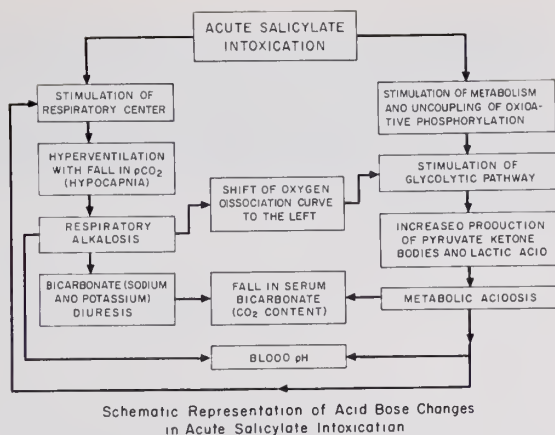
*From the Division of Nephrology and Hypertension, University of Louisville School of Medicine.

gest massive quantities of salicylates for suicidal purposes.

Mild salicylate intoxication produces dizziness, tinnitus, hyperventilation, nausea and vomiting. Moderate-to-severe intoxication (serum salicylate concentration 80 mg% or higher) produces central nervous system disturbances. In the initial phase there is central nervous system stimulation which is manifested by restlessness, incoherent speech, apprehension, tremor, hallucinations, delirium and generalized convulsions. For the untreated patients or very severe poisoning, this phase is replaced by central nervous system depression including stupor, coma, cardiovascular collapse, respiratory insufficiency, and death.

Acid-base disturbances are an integral part of moderate-to-severe salicylate intoxication. The sequence of events is shown in Fig. 2. The initial event is a respiratory alkalosis. This is due to direct stimulation of the respiratory center. The kidneys compensate by increasing the excretion of bicarbonate, and thus decreasing plasma bicarbonate concentration. At the same time large doses of salicylates produce metabolic acidosis. Though metabolites of salicylates increase the hydrogen ion load, the major contribution is made by an augmented organic acid production resulting from the effects of salicylates on metabolism. Glucose is metabolized anerobically as a result of uncoupling of oxidative phosphorylation produced by salicylates. The serum concentration of beta-hydroxybutyric acid, acetoacetic acid and acetone increases. In addition, marked respiratory alkalosis, by shifting the oxygen dissociation curve to the left, might lead to the formation of lactic acid. In adults and children over the age of four, respiratory alkalosis is the main abnormality. In infants and in very severe intoxication in adults, metabolic acidosis is the dominant disturbance. Usually the metabolic disturbances are mixed—metabolic acidosis and respiratory alkalosis.

Hypokalemia occurs frequently, particularly during treatment. This is due to the shift of potassium into cells during the phase of respiratory alkalosis and increased excretion of potassium during bicarbonate diuresis. The use of diuretics also contributes to hypokalemia. The blood sugar may be high or low. Hyperglycemia may result from increased release of epinephrine. The salicylate-induced hypoglycemia may be related to increased utilization



and decreased production of glucose by peripheral tissues. Fever is quite common and occasionally hyperpyrexia may develop. Salicylates also reduce plasma prothrombin concentrations. Thrombocytopenia, though rare, has been reported. Other unusual complications include pulmonary edema and acute hepatic necrosis. Pulmonary edema may be a hypersensitivity phenomenon, or central in origin. Occasionally this may be due to fluid overload during treatment of salicylate intoxication.

Treatment

Immediate attention should be directed to determining the adequacy of respiration and state of hydration. If the patient is seen within a few hours of ingestion of salicylates, gastric lavage or induced vomiting should be considered. Any potential benefit from this procedure should be weighed against the risk of aspiration. Vitamin K should be given if indicated. Mild poisoning is often managed by gastric lavage followed by antacids and fluids by mouth.

Moderate-to-severe cases should be managed in the intensive care unit with close monitoring of vital signs and urine output. Blood gases and serum potassium should be frequently determined. Forced alkaline diuresis can be instituted before the patient reaches the intensive care unit. This is a safe procedure if properly monitored. Alkalinization causes ionization of salicylates and thus prevents reabsorption in the renal tubules, leading to an increased excretion and decreased half-life. Alkalinization should be attempted even if the initial blood pH is moderately alkaline. The type and amount of fluids and administration will depend on cardiovascular status, renal

function and response to diuretic therapy. Though each hospital may have its own protocol, we tend to give 2½ % dextrose in 0.45% saline at a rate of 500 ml/hour for four hours. The infusion rate is subsequently adjusted to 60 ml/hour plus the urine flow rate. Sodium bicarbonate (44 mEq) and potassium chloride (20 mEq) are added to each liter. If diuresis begins to subside, 25 gm of mannitol or, less preferably, furosemide may be added.

The indications for dialysis are few. Hemodialysis is the method of choice. A serum drug level in the potentially lethal range, renal failure or poor results from forced alkaline diuresis, prolonged coma, worsening clinical status and underlying pulmonary disease might constitute relative indications.

K. K. ARORA, M.D.
M. K. SRIDHARAN, M.D.
R. A. SCHACHT, M.D.
D. G. MARTIN, M.D.

References

1. Woodbury, M.M.: Analgesics and antipyretics. *The Pharmacological Bases of Therapeutics*, edited by Goodman, L.S., and Gilman, A. New York, Macmillan Co., 1965, pp. 314-329.
2. Kallen, R.J., Zaltzman, S., Coe, F.L., and Metkoff, J.: Hemodialysis in children. *Medicine*, 45:1-45, 1966.
3. Levi, A.J.: Poisoning. *Recent Advances in Medicine*, edited by Baron, D.N., Compston, N., Dawson, A.M., London, J., and Churchill, A., Ltd 1968, pp. 95-120.
4. Fay, R.: Salicylate poisoning in children. *New York J. Med.*, 69: 3155-6, 1969.
5. Ferguson, R.K., and Bontros, A.R.: Death following self-poisoning with aspirin. *JAMA*, 213:1186-88, 1970.

Details of the 1974

KMA Annual Meeting

will be published in the

NOVEMBER

Journal of the Kentucky Medical Association

SPECIAL ARTICLES

State Licensure For Health Maintenance Organizations

GEORGE F. BROCKMAN, M.D.*

IN the winter of 1973-74, the legislative interest of the medical profession was at least 90% concentrated on PSRO because of the impact of this on the personal fortunes of many physicians. With the partial resolution of some of the more significant PSRO problems, it seems well to devote some attention to other legislative activities.

The most significant federal legislation was the passage of the Health Maintenance Organization Act of 1973 (Public Law 93-222). In establishing this five-year demonstration and funding program, Congress supported the hopeful concept that greater cost-containment for health care could result from the extensive development of prepaid contract practice. Although obviously intending an instrument for social change, the Congress was mindful of the financial drain unwittingly established by previous ill-considered federal enactments, and made a thoughtful effort to avoid an open-ended financial commitment of treasury funds to HMOs. Among the measures designed to fence out the quick-buck artist, the Congress:

a. Sharply limited the amount of federal support to a maximum of \$2,500,000 per HMO.

b. Defined in great detail the extensive services that an HMO must provide, and,

c. Defined the structuring and operation of HMOs in a manner that substantially restricts the physician role in the HMO to direct patient care on a salaried status. To, or perhaps beyond, the maximum feasible extent, the control of federally-supported HMOs is to be exerted by consumers and the Department of HEW. This definitely lessens the attractiveness of the HMO operation to some physician-entrepreneurs.

To broaden the sweep of the HMO as a social force, at the expense of other components of the health field, Congress required that every employer of over 25 persons, who offers a health care benefit to his employees, must offer the employees an option for HMO subscription, if there is a federally-certified HMO in the service area.

Complementing the federal HMO enactment, the Kentucky General Assembly, in adopting amendments to the Insurance Code, provided for state licensure of HMOs. A review of the background is helpful in understanding this unusual legislation, which may become of importance to Kentucky physicians.

For a dozen years, the proponents of contract group practice have lamented that there are, or might be, state restrictions which inhibit the operation of such organizations. Although these restrictions have never been definitely cataloged, there has been a persistent call for federal legislative pre-emption of areas of restriction. Since an HMO is at least in part a health insurance plan, these calls for federal pre-emption attracted the attention of the National Association of Insurance Commissioners (NAIC).

The regulation of insurance has remained a function of state government, in large part through the efforts of NAIC, which is the oldest and one of the most effective of the interstate co-operative groups representing state governments. NAIC held extensive hearings and correspondence with representatives of clinics, groups and contract-practices. By the time of the congressional hearings on the Health Maintenance Act of 1973, NAIC had developed a model act placing the licensure of Health Maintenance Organizations under the commissioners of insurance of the states. In this Act, they removed all known and conceivable state restrictions which might inhibit

*Chairman, Medical Services Committee, Kentucky Society of Internal Medicine

the formation of Health Maintenance Organizations. The House Committee holding hearings on PL 93-222 was impressed with this activity and acknowledged a community of interest with NAIC in limiting the scope of federal pre-emption. Federally-sponsored HMOs must be state-licensed, if a state requires licensure.

The model Act as adopted in the Kentucky HMO Act of 1974 provides that any legal **person** (including any individual, partnership, association, trust, corporation, hospital or insurance company) may obtain from the Commissioner of Insurance of certificate of authority to establish and operate an HMO.

By insurance industry standards, the financial requirements laid on the HMO are quite modest. A surety bond of from \$40,000 to \$140,000 to insure performance of obligations may be required unless the Commissioner "is satisfied that the assets of the organization are sufficient to reasonably assure the performance of its obligations."

In parallel with the Federal requirements, the HMO must, after two years of operation, hold a period of open enrollment in which all applicants are enrolled in the order in which they apply, and there must be such an open enrollment period annually. With the approval of the Commissioner, however, the HMO may place such restrictions on the enrollment of the over-sick or under-privileged as will insure its financial stability. In view of the Commissioner's statutory charge to protect the financial integrity of insurance organizations, there seems little prospect of the state-licensed HMO becoming an avenue of broad social change in extending coverage to the medically under-privileged.

Other than financial, the requirements for the HMO in filing for authorization are equally modest. A description of the principal officers and organizers of the group, together with the proposed contract to be issued and similar basic information, is all that is required. Again, by normal standards of health insurance industry, the disclosures are minimal. An HMO must make available to subscribers a simplified financial report annually, and must submit to

the Commissioner of Insurance a simple report of activities annually.

Once authorized to operate, the HMO is free to advertise all of its services (including physician services) in such manner as it deems best, subject to only commercial standards of truth in advertising. It may appoint agents and representatives on salary or commissions to promote its wares.

By operating under a state license rather than under federal regulations, an HMO escapes many of the socially-motivated restrictions Congress imposes on the federal HMO. Under the state law:

1. There is no required list of minimal services, and there is no requirement for the provision of preventative care.

2. There is no requirement for internal or external surveillance of the quality of care.

3. There is no requirement that enrollees or consumers have any role in the operation of the organization.

4. There is no requirement that service be available on a 24-hour basis seven days a week.

5. There is no requirement for compliance with overall comprehensive health planning in its service area, although the request for authorization must go through the Certificate-of-Need channel.

6. There is no requirement that providers of service be limited to salaried practices.

7. There is no requirement for central records or equipment.

8. There is no requirement for continuing education of the health care providers.

Under the permissive state HMO legislation, developments will probably be somewhere between two scenarios which represent the extremes. In the happier, a group of high-minded physicians develop a novel and cost-effective plan for the delivery of health services. In the worst case, an imaginative promoter finds a bonanza by using a facade of pliable consumers as a cover for a stable of low-salaried, under-achieving physicians. As other states rush to adopt the model HMO legislation, he develops a national franchise chain, to go public as the HMO Corporation of America, the hottest new issue in the market of 1976.



MATERNAL MORTALITY



From the Files of the KMA Maternal Mortality Study Committee

—Edited by John W. Greene, Jr., M.D.

CASE 16-71. This 33-year-old female, married, Gravida 3, Para 2, was under the care of a private physician. Two previous pregnancies were 17 and 16 years ago. The largest infant weighed 9 lbs. Only previous surgery was an appendectomy. LMP was 1/27, thus the EDD was 10/3/71. She was seen initially on June 29, 1971. The prenatal course was apparently uncomplicated until the membranes ruptured spontaneously at 2:20 a.m. on September 27, 1971.

She was admitted to the hospital at 11:45 p.m. on October 1, 1971, having contractions of fair quality every 3-4 minutes. Temperature was normal, BP 136/80, FHT good, and the cervix was 3-4 cm dilated. She received 100 mg Vistaril IM at 12:30 a.m.; BP was 160/90. At 1:45 a.m. on October 2nd, the cervix was described as 4 cm dilated and thick. She was given 50 mg Demerol and 0.4 mg scopolamine IM at 2:10 a.m.; BP was 170/90, FHT was good. The cervix was 5 cm at 3:00 a.m. on vaginal exam. At 4:10 a.m. the cervix was described as thin, 5 cm dilated. A foul odor of the amniotic fluid was noted. BP at this time was 130/70; contractions were every 3-4 min lasting 40-45 sec. She was sleeping between contractions at 4:40 a.m.; BP 130/90, FHT good. She received an additional 50 mg Demerol IM at 5:10 a.m.; BP was 120/70, FHT good and the cervix was 5 cm dilated. At 6:00 a.m. her temperature was 100, BP 150/80, pulse was 100. The cervix remained 5 cm dilated. When checked at 7:25 a.m. the cervix was the same. There was a note "presenting part felt odd, swollen, not like the head". Her physician was notified; 50 mg Demerol and 0.4 mg scopolamine were given IM.

One thousand cc D5W was given, IV, at 8:15 a.m. and the patient was taken to the delivery room with the cervix completely dilated. What was thought to be buttock was discovered to be a shoulder presentation. Consultation was obtained from an OB-GYN consultant who concurred with the planned emergency section. He was unable to hear the fetal heart at this time. Under general anesthesia at 9:45 a.m., October 2nd, a classical incision was made in the uterus and a stillborn male infant was delivered weighing 6 lb. ½ oz. The left shoulder was presenting through the dilated cervix. Two ccs of oxytocin were added to the IV and 1 cc of oxytocin was given intramuscularly. The placenta was manually removed. Cultures were taken from the uterine

cavity; there was no gross evidence of infection in the uterus. It was closed with interlocking 0 chromic suture.

Her BP on moving to the recovery room at 10:50 a.m. was 74/30, P 132; the fundus was firm and 500 cc whole blood was started. Her condition was listed as poor; 125 mg Solu Mederol was given IV at 11:23 a.m. The blood was absorbed at 11:50 a.m. BP was 100/0, P 128. Normosil with polycillin was added to the IV. Her BP stabilized around 90/50. A unit of packed cells was added to the IV at 8:25 p.m. She had had 3000 cc of fluids since the surgery and one pint of blood. Another unit of packed cells was added at 9:25 p.m. and her BP stabilized around 108/70, P 120. She was moved from the recovery room to her room. She passed 1000 cc urine via Foley catheter. Her chest was congested and her condition was considered serious.

Her BP was stable on October 3rd at 122/80. Her physician noted the lungs had coarse rolls; the abdomen seemed moderately distended, and peristalsis was good. Polycillin 500 mgm orally was ordered every four hours.

A binder was ordered for the abdominal distension, and a Levin tube inserted obtaining a large amount of fluid; however, the patient couldn't tolerate it.

Her physician returned to the hospital—BP 120/80, pulse 96.4. Ten mg of morphine sulfate were ordered and she was maintained on IV fluids, 2000 cc Norm-R over a 6-hr period with the polycillin 500 mg IV of 6 hrs. She had a severe chill at 3:00 a.m. on October 4th. Temperature was 102. Patient was ambulating. No bowel sounds were heard. She had an increase in her bilirubin; the direct reading was 5 mg%, indirect 6.6 mg%. The electrolyte profile ordered for the 4th revealed reduced pH Na-K 9 CL. A large amount of gastric suction was obtained. She had very coarse rolls on examination of the chest, especially at the left base. The impression at this time was ileus with peritonitis with pulmonary problems.

She seemed somewhat improved on October 5th. Serum K 4.4; pH 7.45; chlorides elevated CO₂ remained low. When the dressing was removed from the incision, it was soaked with a foul-smelling serosanguineous drainage. A culture was sent to the lab. Temperature was normal, pulse quite rapid 136, BP 140/88.

Her respiration remained labored, rapid 36, and she had some bright blood in the Levin tube on October 6th. She received Cedilanid 0.8 mg IM stat at 3:00 p.m. and was transferred to ICU at 6:15 p.m.

She was started on Keflin 4 gm, nasal oxygen and Levin suction. A moderate amount of serosanguineous drainage from the abdominal incision continued. Solu Mederol 250 mg was added to the IV plus Geromycin 80 mg IM. She remained critical on October 7th and was jaundiced.

On the 8th there was a decrease in the white count and the jaundice increased; later she seemed improved, had good bowel sounds and passed flatus.

On the 9th she was again alkalotic and had rather copious amounts of output from the Levin suction. Her condition deteriorated at 7:20 p.m. with a rapid pulse of 106 and respiration 40. The suction output was 2,000 while the urinary output was only 500 cc. The pH was 7.50; PCO_2 was 25. The next morning, the 10th, she expired at 6:10 a.m., nine days postpartum. An autopsy was obtained.

After opening the sutures, the wound was found gaping. Both lungs were congested. The stomach contained three acute ulcers, measuring 0.4 cm in diameter. The liver had an icteric surface. The uterine fundus was about 10 cm above the symphysis. The serosa was covered with purulent material. After the sutures were released the wound was gaping and unhealed. The lower portion of the uterus contained purulent material, while the endometrial part of the upper portion contained 0.1 to 0.2 cm-thick layer of clotted blood. There was no evidence of microabscesses. The ovaries and fallopian tubes were normal.

The final diagnosis was death from overwhelming proteus infection involving the entire peritoneal cavity, resulting in general toxic nephrosis, shock and terminal bronchopneumonia.

Comments

This case was classified as a direct obstetrical death with preventable factors. The Committee felt that there was a prolonged period of time before adequate treatment was instituted. Amnionitis is a very serious disease. When the temperature elevation in addition to the foul amniotic fluid was noted, intensive antibiotics and therapy should have been instituted. Of course one can say that hindsight, in this case, would best have been managed by Cesarean section hysterectomy. The Committee felt that she had an anaerobic infection, probably a *Bacteroides* since she failed to respond to the antibiotics she received. We are seeing an increasing number of such pelvic infections that need the appropriate antibiotics in order to properly treat them. Although a proteus was isolated, special techniques have to be utilized to detect *Bacteroides* organisms. Frequently they will not show growth for four to eight days after proper culture is instituted. It was also stated that, unfortunately, the abnormal presentation was not detected earlier so that proper treatment could have been instituted.

General LEASING

Doctor! This is Your Own Place
ENDORSED BY THE

**Kentucky Medical
Association**

for the leasing of

Cars—All makes & models,
Medical, Surgical & Laboratory
Equipment
and Office Furnishings.

**16 YEARS EXPERIENCE
IN THIS FIELD**

**General Leasing
CORPORATION**

121 Bauer Ave. St. Matthews

(502) **896-0383**

**All of these mammals, except one,
can synthesize vitamin C**



Woman (man) cannot.

Human beings can neither synthesize vitamin C nor store most of the water soluble vitamins. They should be replenished continuously.

Normally, people accomplish this in their daily diet. But under conditions of illness, stress, in convalescence or following surgery, vitamin stores may be depleted or metabolic demands increased.

In such cases, Surbex-T may be indicated. Surbex-T makes it easy and convenient to restore the water-soluble vitamins. Each tablet provides 500 mg. of vitamin C plus high potency B-complex.

Where nutritional status must be preserved, Surbex-T can help restore what the body *cannot* effectively store.

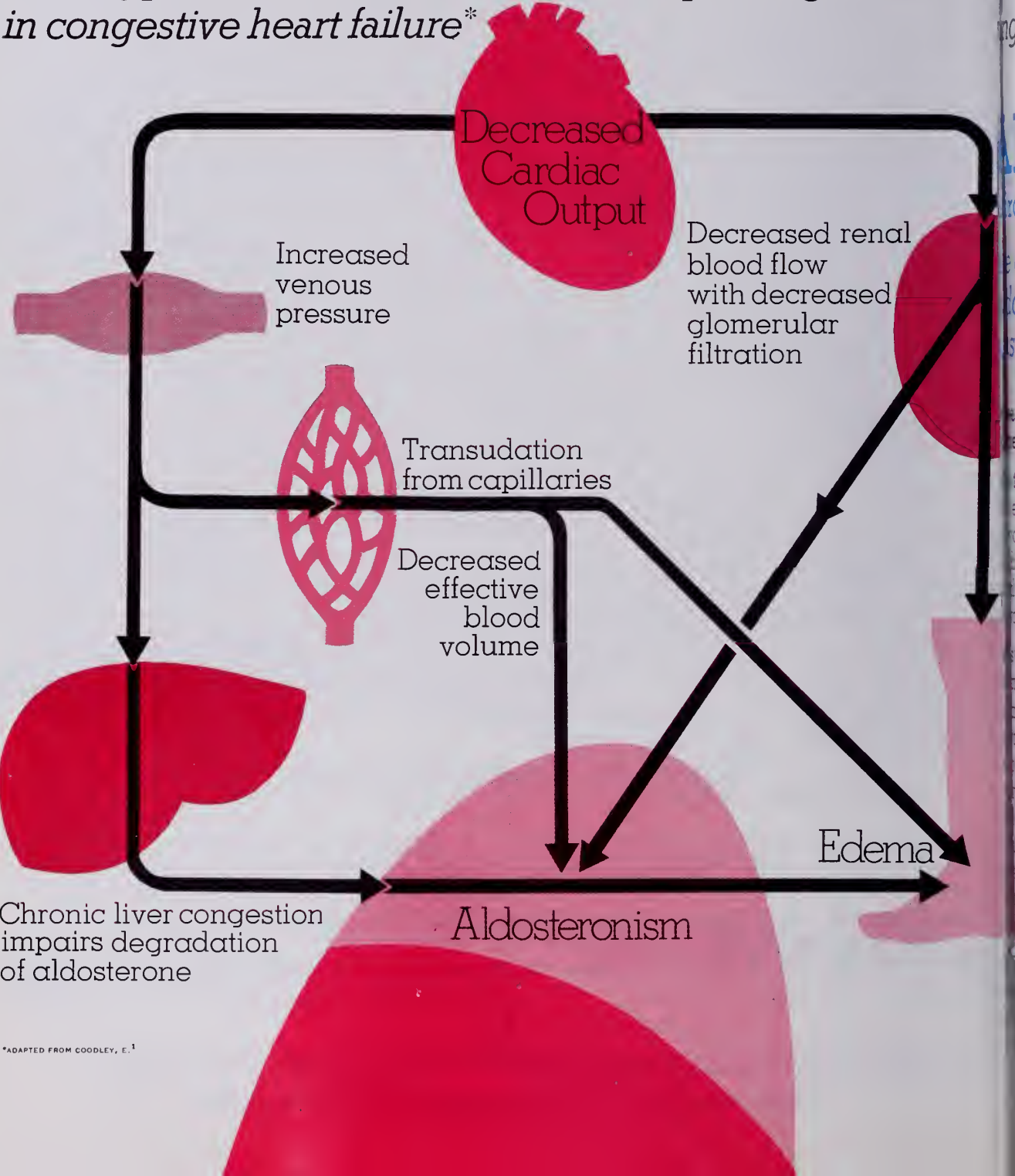


SURBEX-T[®] 500 mg. of Vitamin C with High Potency B-Complex

Restores what the body cannot effectively store

In congestive heart failure...
secondary aldosteronism

*How hyperaldosteronism leads to and prolongs edema in congestive heart failure**



*ADAPTED FROM COODLEY, E.¹

a primary factor

*"switch off" the aldosterone factor in
congestive heart failure*

Aldactone
spironolactone 25-mg. tablets
*the only specific
aldosterone antagonist...
basic in all diuretic therapy*

ways to use Aldactone in
congestive heart failure

the only diuretic
often sufficient alone.
produces gradual, sustained diuresis by
blocking aldosterone action in the distal
renal tubule.
prevents potassium loss.

the basic daily diuretic with an "add-on"
alternate-day-diuretic ("A.D.D." schedule)
can be administered daily as basic
therapy with the additional agent
(furosemide or ethacrynic acid) given
on second or third day.
Aldactone plus "A.D.D." schedule
minimizes potassium deficiency and
prevents effect of "add-on" diuretic.²
prevents acute volume depletion and
aldosterone rebound.²

as a daily diuretic in combination with
daily dose of a thiazide
permits daily additive diuretic effect
while maintaining potassium balance.

Indications—Essential hypertension; edema or ascites of congestive heart failure, cirrhosis of the liver and the nephrotic syndrome; idiopathic edema. Some patients with malignant effusions may benefit from Aldactone (spironolactone), particularly when given with a thiazide diuretic.

Contraindications—Acute renal insufficiency, rapidly progressing impairment of renal function, anuria and hyperkalemia.

Warnings—Potassium supplementation may cause hyperkalemia and is not indicated unless a glucocorticoid is also given. Discontinue potassium supplementation if hyperkalemia develops. **Usage of any drug in women of childbearing age requires that the potential benefits of the drug be weighed against its possible hazards to the mother and fetus.**

Precautions—Patients should be checked carefully since electrolyte imbalance may occur. Although usually insignificant, hyperkalemia may be serious when renal impairment exists; deaths have occurred. Hyponatremia, manifested by dryness of the mouth, thirst, lethargy and drowsiness, together with a low serum sodium may be caused or aggravated, especially when Aldactone is combined with other diuretics. Elevation of BUN may occur, especially when pretreatment hyperazotemia exists. Mild acidosis may occur. Reduce the dosage of other antihypertensive drugs, particularly the ganglionic blocking agents, by at least 50 percent when adding Aldactone since it may potentiate their action.

Adverse Reactions—Drowsiness, lethargy, headache, diarrhea and other gastrointestinal symptoms, maculopapular or erythematous cutaneous eruptions, urticaria, mental confusion, drug fever, ataxia, gynecomastia, inability to achieve or maintain erection, mild androgenic effects, including hirsutism, irregular menses and deepening voice. Adverse reactions are infrequent and usually reversible.

Dosage and Administration—For essential hypertension in adults the daily dosage is 50 to 100 mg. in divided doses. Aldactone may be combined with a thiazide diuretic if necessary. Continue treatment for two weeks or longer since an adequate response may not occur sooner. Adjust subsequent dosage according to response of patient.

For edema, ascites or effusions in adults initial daily dosage is 100 mg. in divided doses. Continue medication for at least five days to determine diuretic response; add a thiazide or organic mercurial if adequate diuretic response has not occurred. Aldactone dosage should not be changed when other therapy is added. A daily dosage of Aldactone considerably greater than 75 mg. may be given if necessary.

A glucocorticoid, such as 15 to 20 mg. of prednisone daily, may be desirable for patients with extremely resistant edema which does not respond adequately to Aldactone and a conventional diuretic. Observe the usual precautions applicable to glucocorticoid therapy; supplemental potassium will usually be necessary. Such patients frequently have an associated hyponatremia—restriction of fluid intake to 1 liter per day or administration of mannitol or urea may be necessary (these measures are contraindicated in patients with uremia or severely impaired renal function). Mannitol is contraindicated in patients with congestive heart failure, and urea is contraindicated with a history or signs of hepatic coma unless the patient is receiving antibiotics orally to "sterilize" the gastrointestinal tract.

Glucocorticoids should probably be given first to patients with nephrosis since Aldactone, although useful for diuresis, will not directly affect the basic pathologic process.

For children the daily dosage should provide 1.5 mg. of Aldactone per pound of body weight.

References: 1. Coodley, E.: Consultant 12:106-107, 109, 111, 113, 115 (July) 1972. 2. Thorn, G. W., and Lauler, D. P.: Am. J. Med. 53:673-684 (Nov.) 1972.

SEARLE

Searle & Co.

San Juan, Puerto Rico 00936

Address medical inquiries to:

G. D. Searle & Co.

Medical Department

Box 5110, Chicago, Illinois 60680

The Role of the Detail Man

"I may be prejudiced, but I am very much in favor of the detail man. Most of them are knowledgeable about the drugs they promote and can be a great help in adjusting me with new medication."

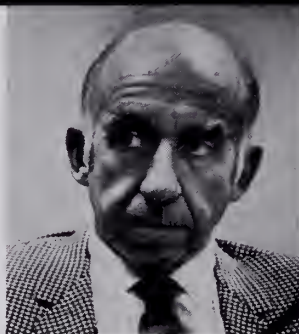
Family Physician's Perception

I think that most general practitioners in this area feel good about the detail man. Over the years I have gotten to know many of the men who visit me regularly and they in turn have become aware of my particular interests and the nature of my practice. They, therefore, limit their discussion as far as possible to the areas of interest to me. Since I usually see the representative again in future visits, it is in his best interest to supply me with the most honest, factual, as well as up-to-date information about his products.



Dr. Willard Gobbell
Family Physician
Encino, California

Dr. Jeremiah Stamler
Chairman
Department of Community
Health and Preventive
Medicine, and Dingman
Professor of Cardiology
Northwestern University
Medical School



"In the total picture of dealing with health problems in this country, there is a potential for detail men to play a meaningful role."

The Positive Influence

My contact with representatives and salesmen of the pharmaceutical industry is the type of contact that people in a medical or research people, and academic people have and that's in all likelihood on a somewhat different level than that of the practicing physician.

Let me touch on how I personally perceive the role of the sales representative. These men represent large numbers of health professionals. Thus they could be—at times actually are—disseminators of useful information. They could consistently serve a real educational function in their ability to discuss their products.

At present they do distribute printed material, brochures and pamphlets—some of it scientifically sound and therefore truly useful—as well as some excellent products produced by the pharmaceutical industry. When they function in

Opinion
&
Dialogue

Source of Information?
es, with certain reservations. erage sales representative reat fund of information he drug products he is re- ble for. He is usually able to most questions fully and ently. He can also supply s of articles that contain a eal of information. Here, xercise some caution. I usu- ept most of the statements ions that I find in the and studies which come he larger teaching facilities. without saying that a physi- ould also rely on other s for his information on acology.

g of Sales Representatives
eally, a candidate for the n as a sales representative armaceutical company be a graduate pharmacist s a questioning mind. I don't his is possible in every case, it becomes the responsibility

ty they are indeed useful; ularly in the fact that they inate broadly based educa- material and serve not just shers" of their drugs.

ner Side of the Coin
bviously, the pharmaceuti- npanies are not producing all aterial as a labor of love — e in the business of selling ts for profit. In this regard bitious and improperly moti- ales representative can negative influence on the ing physician, both by pre- g a one-sided picture of his ct, and by encouraging the ioner to depend too heavily gs for his total therapy. In ways, the salesman has often ed objective reality and mined his potential role as an or.

dustry Responsibility
ince the detail man must be rmation resource as well as esentative of his particular aceutical company, he l be carefully selected and

of the pharmaceutical company to train these individuals comprehensively. It is of very great importance that the detail man's knowledge of the product he represents be constantly reviewed as well as updated. This phase of the sales representative's education should be a major responsibility of the medical department of the pharmaceutical company.

I am certain that most of these companies take special care to give their detail men a great deal of information about the products they produce—information about indications, contraindications, side effects and precautions. Yet, although most of the detail men are well informed, some, unfortunately, are not. It might be helpful if sales representatives were reassessed every few years to determine whether or not they are able to fulfill their important function. Incidentally, I feel the same way about periodic assessments of everyone

thoroughly trained. That training, perforce, must be an ongoing one. There must be a continuing battle within and with the pharmaceutical industry for high quality not only in the selection and training of its sales representatives, but also in the development of all of its promotional and educational material.

The industry must be ready to accept constructive as well as corrective criticism from experts in the field and consumer spokesmen, and be willing to accept independent peer review. The better educated and prepared the salesman is, the more medically accurate his materials, the better off the pharmaceutical industry, health professionals and the public—i.e., the patients—will be.

Physician Responsibility

The practicing physician is in constant need of up-dated information on therapeutics, including drugs. He should and does make use of drug information and answers to specific questions supplied by the pharmaceutical representative. However, that informa-

in the health care field, whether they be general practitioners, surgeons or salesmen.

Value of Sampling

I personally am in favor of limited sampling. I do not use sampling in order to perform clinical testing of a drug. I feel that drug testing should rightly be left to the pharmacology researcher and to the large teaching institutions where such testing can be done in a controlled environment.

I do not use samples as a "starter dose" for my patients. I do, however, find samples of drugs to be of value in that they permit me to see what the particular medication looks like. I get to see the various forms of the particular medication at first hand, and if it is in a liquid form I take the time to taste it. In that way I am able to give my patients more complete information about the particular medications that I prescribe for them.

tion must not be his main source of continuing education. The practitioner must keep up with what is current by making use of scientific journals, refresher courses, and information received at scientific meetings.

The practicing physician not only has the right, but has the responsibility to demand that the pharmaceutical company and its representatives supply a high level of valid and useful information. I feel certain that if such a high level is demanded by the physician as well as the public, this demand will be met by an alert and concerned pharmaceutical industry.

From my experience, my impression is that sectors of the pharmaceutical industry are indeed ethical. I challenge the industry as a whole to live up to that word in its finest sense.

*Pharmaceutical
Manufacturers Association
1155 Fifteenth Street, N.W.
Washington, D. C. 20005*





EYES RIGHT!

...to SOUTHERN OPTICAL

LOUISVILLE Southern Optical Bldg. — 640 S. 4th
 Contact Lenses — 640 S. 4th
 Medical Towers Bldg., Floyd & Gray
 Doctors Office Bldg., Liberty at Floyd
 Medical Arts Bldg., 1169 Eastern Parkway
 Professional Bldg. East, 3101 Breckinridge Lane
 Medix Bldg. — Adj. S.S. Mary & Elizabeth Hosp.

ST. MATTHEWS 313 Wallace Center and 108 McArthur Drive

NEW ALBANY Professional Arts Bldg., 1919 State Street

BOWLING GREEN 524 East Main Street

OWENSBORO Doctors Bldg., 1001 Center Street



*Southern
Optical*

**CHARGE ACCOUNTS
INVITED**
 BankAmericard
 Master Charge

INDIANA'S ONLY PRESTIGE ANTIQUES SHOW

23rd Nationally FAMOUS CRUTCHER ANTIQUES SHOW

INDIANAPOLIS Oct. 31 November 1, 2, 3, 1974

Exposition Hall, State Fairgrounds, 1500 E. 38th St. (US 36 - SR 67)

11 A.M. - 10:30 P.M.

ADM. \$1.75 for 4 days

Sunday 11 to 6 P.M.

Free parking Restaurant

Here under one roof is displayed the largest quantity of high quality antiques ANYWHERE! The greatest rarities in all categories; every price range. Finest Early American, Georgian and English silver. Signed American pewter. Paintings. Oriental rugs. Priceless art and cut glass, pottery.

Early flasks, lacy salts, flint candlesticks, lacy Sandwich. Flint and Victorian pattern glass. China export porcelains. Derby, Worcester, Leeds, Wedgewood, Liverpool jugs, Meissen, lustreware. Tea caddies, travel desks, samplers. Currier & Ives prints. Rarities in dolls. Gaudy Dutch, Haviland. Primitives. Painted tin. Booth of early lighting devices. 135 exhibitors. 62 dealers in early furniture: c-1740 to Centennial—American formal and informal: English, French, Oriental, Country.

Russian enamels. Fine collectible boxes (some gold). Large Royal Vienna urn; KPM porcelains. Icons. Signed Tiffany lamps. Coins, old books, antiques for men. EVERYTHING. Finest quality orientalia.

EMPHASIS ON AMERICANA

**NO OTHER INDIANAPOLIS SHOW COMPARES IN ANY WAY. Huge booths.
 BUY WITH CONFIDENCE EVERYTHING GUARANTEED QUALITY CONTROLLED
 AN EDUCATION IN REAL ANTIQUES**

All of the fine early things missing in most shows today.
 Jean Crutcher, Manager, R. 1, 7370 Old National Trail, E.
 New Carlisle, Ohio 45344

Letters To The EDITOR

The Letters To The Editor column is a means for the KMA physicians to express their opinions and viewpoints on varied topics. If you have an item you would like brought before your fellow practitioners, please submit it to Letters To The Editor, Kentucky Medical Association, 3532 Ephraim McDowell Dr., Louisville, Kentucky 40205. Communications should not exceed 250 words. The right to abstract or edit is reserved by the editors of *The Journal*. Names will be withheld upon request, but anonymous letters will not be accepted.

Dear Editor:

The editorial "Reflections on Colonoscopy" in the May 1974 *Journal* would give those with no experience with colonoscopies misconceptions about the procedure, its preparation and indications.

Our colonoscope has been so valuable that we feel every hospital should have one if trained personnel are available. It has saved hospitalization time and money by giving definitive diagnoses that cannot be obtained by other means.

Colonoscopies may be done prior to contrast studies and are no more hazardous and usually less uncomfortable. Colonoscopy preparation helps prepare for a subsequent barium enema, but barium enemas often make colonoscopies difficult for days because of adherent barium.

In acute inflammatory colon disease, colonoscopy has not proven unduly hazardous and has been of diagnostic value. Care is necessary in doing the exam, realizing the potential dangers and greater discomfort.

Colonoscopy may diagnose the etiology of acute bowel obstruction and is used for this indication. An acute obstruction due to sigmoid volvulus has been resolved with the colonoscope when the sigmoidoscope failed.

Preparation may be simple and effective and does not require hospitalization. Four Dulcolax tablets taken the evening before and two 1000 cc normal saline enemas taken one hour apart prior to the examination will generally give a very satisfactory preparation. If inflammatory disease or obstruction is suspected, only gentle saline enemas are given. The examination takes usually 15 to 20 minutes, with the splenic flexure being usually reached if no pathology precludes this.

My routine lower colon screening exam is colonoscopy because of its simplicity, the superior examination obtained, and the lack of discomfort.

The expense of the instrument, the small biopsy specimens obtained, and the training and experience for its proper use are definite disadvantages. The scope should never be passed forcibly. Care must be taken to avoid over distension of the colon and to evacuate the air at the end of the procedure.

In 3½ years of its use, we have not had complications.

William B. Cook, M.D., F.A.C.S.
Chief of Surgery
Highlands Regional Medical Center
Prestonsburg, Kentucky

Dear Editor:

The removal of every hospital Utilization Committee in Kentucky from the responsibility by appointment of the medical staff of each hospital to the control of the Kentucky Peer Review Organization, Inc., by direct appointment of the PSRO of active members of the hospital staff is a point which has not been mentioned by any of the KPRO spokesmen I have had the privilege and pleasure of listening to. Inasmuch as no single critical remark concerning the interference with care of the patients has been brought about through our Kentucky Medical Association *Journal*, I assume that you owe some space to "the other side."

Federalization for our medical care was alleged to be prevented according to KPRO's advertisement in the August issue of *The Journal* by the physicians and osteopaths of the state joining KPRO. Manifestly this is incorrect, because KPRO represents federalization because the Kentucky Peer Review Organization joins with other nationwide PSRO organizations, which if implemented, form a federal union, the description of federalization. On the other hand, if Blue Cross-Blue Shield continue their surveillance, and the Utilization Committees of the medical staffs of the hospitals maintain their own autonomy, then we do not have federalization.

John B. Floyd, Jr., M.D.
119 East Maxwell Street
Lexington, Kentucky 40508

PARTNER WANTED

To join Medicine, Pediatrics and OB Practice established for 23 years in South Louisville. Contact John E. Ryan, M.D. (502) 366-0515 (24 hours).



ORGANIZATION SECTION



Continuing Education Programs On TV To Be Listed

In keeping with the format of the past year, *The Journal* will again be publishing the schedules of upcoming medical education programs distributed by the Network for Continuing Medical Education (NCME). The schedules can be found on the Postgraduate Opportunities Page.

NCME is an educational television service for some 100,000 physicians at over 650 hospitals and medical centers across the country. Kentucky hospitals served by NCME are as follows:

Hardin Memorial Hospital, Elizabethtown
Hopkins County Hospital & Trover Clinic, Madisonville
Jennie Stuart Memorial Hospital, Hopkinsville
King's Daughters' Hospital, Ashland
Owensboro-Daviess County Hospital, Owensboro
St. Claire Medical Center, Morehead
St. Elizabeth Hospital, Covington
University of Kentucky Medical Center, Lexington
St. Anthony Hospital, Louisville

These programs, predominantly clinical in nature, are approved for accreditation by the American Medical Association and the American Academy of Family Physicians.

Supported by Roche Laboratories, NCME provides programs without charge in videotape formats. As a supplement to its regular service, the NCME Master Library makes some 600 programs available on a rental or purchase basis. For further information, contact NCME, 15 Columbus Circle. New York, N. Y. 10023.

Carroll L. Witten, M.D., Louisville, was elected Chairman of the American Medical Association Council on Constitution and Bylaws on July 25, 1974.

Four physicians were appointed by Gov. Wendell H. Ford to the Council for Health Services, the successor to the State Board of Health. They are **John P. Bell, M.D.**, Louisville, chairman; **Jesse B. Bell, M.D.**, Louisville; **R. Glenn Greene, M.D.**, Owensboro; and **Carl E. Shroat, M.D.**, Frankfort.

The 68th Annual Scientific Meeting of the Southern Medical Association will be held in Atlanta on November 17-20. **Andrew M. Moore, M.D.**, Lexington, is president-elect of SMA.

D. Ray Clawson, M.D., was named the new dean of the University of Kentucky College of Medicine by the UK Board of Trustees. Doctor Clawson, who succeeds **William S. Jordan, Jr., M.D.**, in the post, was formerly professor and chairman of the Department of Orthopedics at the University of Washington School of Medicine in Seattle.

The Daniel Boone Medical Clinic of Harlan, Middlesboro and Whitesburg was notified of its accreditation by the American Association of Medical Clinics. The Clinic was recognized at the AAMC's 25th Anniversary Meeting in September in Washington, D.C.

In Memoriam

JOHN FUTRELL, M.D.
Cadiz
1899-1974

John Futrell, M.D., 75, a family practitioner for nearly 50 years, died September 1. He was a member of the Kentucky Medical Association, American Medical Association, American Academy of Family Practitioners, Trigg County Hospital Board and Trigg County Board of Health.

ELI KHOURI, JR., M.D.
Paducah
1927-1974

Eli Khouri, Jr., M.D., a surgeon specializing in pediatric urology, died August 19 at the age of 46. Doctor Khouri graduated from the University of Louisville School of Medicine in 1955. He was a member of the Kentucky Medical Association, American Medical Association and the McCracken County Medical Society.

Pyoderma Gangrenosum (Continued from Page 550)

6. Lazarus, G.S., et. al.: Pyoderma gangrenosum, altered delayed hypersensitivity and polyarthritis. *Arch. Dermatol.* 105:45-61, 1972.

7. Rosenberg, A.: Schwartzman phenomenon: review with consideration of some possible dermatologic manifestations. *Brit. J. Dermatol.* 65:389-405, 1953.

8. Domonkos, A.N.: Cutaneous vascular disease. *Andrews' Diseases of the Skin*. Philadelphia, W.B. Saunders, Co., 1973.

9. Cline, M.J.: Adrenal steroids in the treatment of malignant hematologic disease. *Med. Clin. N. Am.* 57:1203-1209, 1973.

10. Wall, A.J.: The use of glucocorticoids in intestinal disease. *Med. Clin. N. Am.* 57:1241-1252, 1973.

11. Moschella, S.L.: Pyoderma gangrenosum: a patient successfully treated with intralesional injections of steroid. *Arch. Dermatol.* 95:121-123, 1967.

12. Gardner, L.W., and Acker, D.W.: Triamcinolone and pyoderma gangrenosum. *Arch. Dermatol.* 106:599-600, 1972.

13. Das, K.M., et. al.: Adverse reactions during salicylazosulfapyridine therapy and the relation with drug metabolism and acetylator phenotype. *N. Engl. J. Med.* 289:491-495, 1973.

Maybe the patient's self-diagnosis is right. He could have hay fever. But that bright red nasal mucosa, along with the thick discharge and excoriation around the nares, strongly suggests that the main problem is a cold. Hay fever or another form of allergic rhinitis may or may not be an underlying factor.

If a complete history and examination rule out allergic rhinitis, the long-term outlook will be a lot more favorable than his own "diagnosis" would have indicated.

But right now, whether he's got allergic rhinitis or a cold, he's suffering from the same irritating

symptoms of drip, congestion and stuffiness. Try DIMETAPP EXTENTABS®. They're formulated to relieve these symptoms without much chance of causing drowsiness or overstimulation. Your patients will appreciate the 24-hour relief they can get from just one tablet every 12 hours.

Cold or



Allergy?

Whether it's a cold or an allergy, Dimetapp Extentabs® effectively relieve stuffiness, drip and congestion.

INDICATIONS: Dimetapp Extentabs are indicated for symptomatic relief of allergic manifestations of upper respiratory illnesses, such as the common cold, seasonal allergies, sinusitis, rhinitis, conjunctivitis and otitis. In these cases it quickly reduces inflammatory edema, nasal congestion and excessive upper respiratory secretions, thereby affording relief from nasal stuffiness and postnasal drip.

CONTRAINDICATIONS: Hypersensitivity to antihistamines of the same chemical class. Dimetapp Extentabs are contraindicated during pregnancy and in children under 12 years of age. Because of its drying and thickening effect on the lower respiratory secretions, Dimetapp is not recommended in the treatment of bronchial asthma. Also, Dimetapp Extentabs are contraindicated in concurrent MAO inhibitor therapy.

WARNINGS: Use in children: In infants

and children, particularly, antihistamines in overdosage may produce convulsions and death.

PRECAUTIONS: Administer with care to patients with cardiac or peripheral vascular diseases or hypertension. When the patient's response has been determined, he should be cautioned against engaging in operations requiring alertness such as driving an automobile, operating machinery, etc. Patients receiving antihistamines should be warned against possible additive effects with CNS depressants.

Dimetapp Extentabs®

Dimetane® (brompheniramine maleate), 12 mg.; phenylephrine HCl, 15 mg.; phenylpropanolamine HCl, 15 mg.

and alcohol, sedatives, tranquilizers, etc.

ADVERSE REACTIONS: Adverse reactions to Dimetapp Extentabs may include hypersensitivity reactions such as rash, urticaria, leukopenia, agranulocytosis, and thrombocytopenia; drowsiness; headache; giddiness; dryness of the mucous membranes; tightness of the chest; thickening of bronchial secretions; urinary frequency; and dryness of the mouth. Infants may experience head ache, drowsiness, dizziness, tiredness, and poor nutrition. **CAUTION:** Do not take with CNS depressants and alcohol. **HOW SUPPLIED:** Light blue Extentabs in bottles of 100 and 500.

A-H-ROBINS

A. H. Robins Company, Richmond, Va. 23220

when pain goes on... and on... and on-



For the patient with a terminal illness, PAIN past, present, and future can dominate his thoughts until it becomes almost an obsession. The more he is aware of the pain he is now experiencing, the more difficult it is to erase his memory of yesterday's pain, and to allay his fearful anticipation of tomorrow's pain.


Surely the last thing this patient needs is an analgesic containing caffeine to stimulate the senses and heighten pain awareness. A far more logical choice is Phenaphen with Codeine. The sensible formula provides $\frac{1}{4}$ grain of phenobarbital to take the nervous "edge" off, so the rest of the formula can help control the pain more effectively. Don't you agree, Doctor, that psychic distress is an important factor in most of your terminal and long-term convalescent patients?

the analgesic formula that calms instead of caffeinates

Phenaphen[®] with Codeine

Phenaphen with Codeine No. 2, 3, or 4 contains: Phenobarbital ($\frac{1}{4}$ gr.), 16.2 mg. (warning: may be habit forming); Aspirin ($2\frac{1}{2}$ gr.), 162.0 mg.; Phenacetin (3 gr.), 194.0 mg.; Codeine phosphate, $\frac{1}{4}$ gr. (No. 2), $\frac{1}{2}$ gr. (No. 3) or 1 gr. (No. 4) (warning: may be habit forming).

Indications: Provides relief in severer grades of pain, on low codeine dosage, with minimal possibility of side effects. Its use frequently makes unnecessary the use of addicting narcotics. **Contraindications:** Hypersensitivity to any of the components. **Precautions:** As with all phenacetin-containing products, excessive or prolonged use should be avoided. **Side effects:** Side effects are uncommon, although nausea, constipation and drowsiness may occur. **Dosage:** Phenaphen No. 2 and No. 3—1 or 2 capsules every 3 to 4 hours as needed; Phenaphen No. 4—1 capsule every 3 to 4 hours as needed. For further details see product literature.

 Phenaphen with Codeine is now classified in Schedule III, Controlled Substances Act of 1970. Available on written or oral prescription and may be refilled 5 times within 6 months, unless restricted by state law.

A. H. Robins Company, Richmond, Va. **A-H-ROBINS**

The Bactrim^{T.M.} edge

Each tablet contains 80 mg trimethoprim and 400 mg sulfamethoxazole.

high assurance of clinical efficacy

- in cystitis, pyelonephritis and pyelitis diagnosed as chronic
- against susceptible strains of the common urinary tract pathogens, usually *E. coli*, *Klebsiella-Enterobacter*, *Proteus mirabilis*, and, less frequently, indole-positive proteus species.



Before prescribing, please consult complete product information, a summary of which follows:

Indications: Chronic urinary tract infections (primarily pyelonephritis, pyelitis and cystitis) due to susceptible organisms (usually *E. coli*, *Klebsiella-Enterobacter*, *Proteus mirabilis*, and, less frequently, indole-positive proteus species).

The increasing frequency of resistant organisms and the usefulness of antibacterials, especially in chronic and recurrent urinary tract infections.

Contraindications: Hypersensitivity to trimethoprim-sulfonamides; pregnancy; nursing mothers.

Warnings: Deaths from hypersensitivity reactions, leukocytosis, aplastic anemia and other blood dyscrasias have been associated with sulfonamides. Experience with trimethoprim is much more limited but bone marrow interference with hematopoiesis has been reported as well as an increased incidence of thrombocytopenia in elderly patients on diuretics, primarily furosemide. Sore throat, fever, pallor or jaundice may be signs of serious blood disorders. Frequent CBC's recommended; therapy should be discontinued if a significantly reduced count of any formed blood element is noted. Data are insufficient to recommend use in infants and children under 12.

Precautions: Use cautiously in patients with impaired renal or hepatic function, possible folate deficiency, asthma or bronchial asthma; and in those with glucose-6-phosphate dehydrogenase deficiency, where hemolysis may occur. During therapy, maintain adequate fluid intake and perform frequent urinalyses, with microscopic examination, and renal function particularly where there is impaired renal function.

Adverse Reactions: All major reactions to sulfonamides and trimethoprim are included, even if not reported with Bactrim. *Blood dyscrasias:* Agranulocytosis, aplastic anemia, megaloblastic anemia, thrombocytopenia, leukopenia, hemolytic anemia, purpura, prothrombinemia and methemoglobinemia. *Other reactions:* Erythema multiforme, Stevens-Johnson syndrome, generalized skin eruptions, epidermal necrolysis, urticaria, serum sickness, pruritus,

exfoliative dermatitis, anaphylactoid reactions, peri-orbital edema, conjunctival and scleral injection, photosensitization, arthralgia and allergic myocarditis. *Gastrointestinal reactions:* Glossitis, stomatitis, nausea, vomiting, abdominal pains, hepatitis, diarrhea and pancreatitis. *CNS reactions:* Headache, peripheral neuritis, mental depression, convulsions, ataxia, hallucinations, tinnitus, vertigo, insomnia, apathy, fatigue, muscle weakness and nervousness. *Miscellaneous reactions:* Drug fever, chills, toxic nephrosis with oliguria and anuria, periarteritis nodosa and L.E. phenomenon. Due to certain chemical similarities to some goitrogens, diuretics (acetazolamide, thiazides) and oral hypoglycemic agents, sulfonamides have caused rare instances of goiter production, diuresis and hypoglycemia in patients; cross-sensitivity with these agents may exist. In rats, long-term therapy with sulfonamides has produced thyroid malignancies.

Dosage: Not recommended for children under 12.

Usual adult dosage: Two tablets b.i.d. for 10 to 14 days. For patients with renal impairment:

Creatinine Clearance (ml/min)	Recommended Dosage Regimen
Above 30	Usual standard regimen
15-30	2 tablets every 24 hours
Below 15	Use not recommended

Supplied: Tablets, each containing 80 mg trimethoprim and 400 mg sulfamethoxazole—bottles of 100 and 500; Tel-E-Dose[®] packages of 1000; Prescription Packs of 40, available singly and in trays of 10.



Roche Laboratories
Division of Hoffmann-La Roche Inc.
Nutley, New Jersey 07110

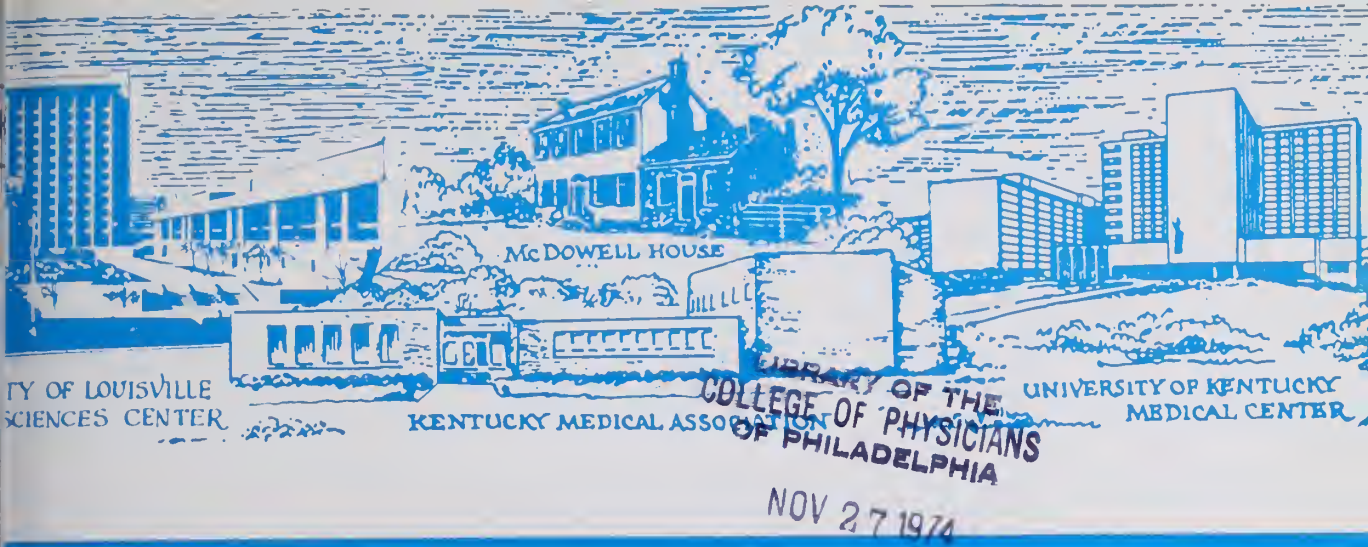
Bactrim^{T.M.}

Each tablet contains 80 mg trimethoprim and 400 mg sulfamethoxazole.



A high assurance of antibacterial activity
in cystitis, pyelonephritis and pyelitis diagnosed
as chronic and due to susceptible organisms.

Before prescribing, please consult complete product information,
a summary of which appears on preceding page.



The Journal of The KENTUCKY Medical Association

Survival After Operation For Abdominal Aortic Aneurysms

Linda Hays Mosely, M.D., Hiram C. Polk, Jr., M.D., and Philip J. Harbrecht, M.D. 595

Wegener's Granulomatosis

Harold J. Schupbach, M.D. 600

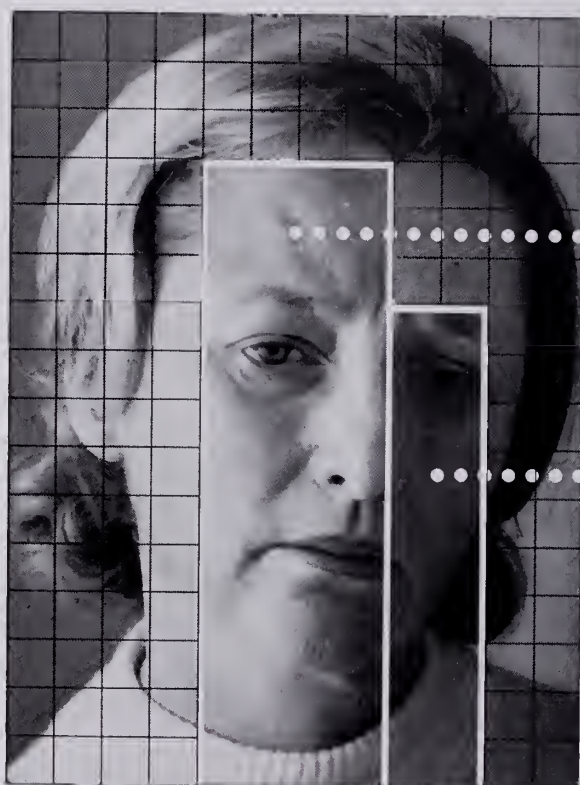
Specific Indications For Parenteral Iron Therapy—Experience With One Hundred Patients Using Intravenous Iron Dextran

Wilk O. West, M.D. 604

ADR (Editorial) 579

Complete Contents on Page 575

Both ofte



● Predominant psychoneurotic anxiety

● Associated depressive symptoms

Before prescribing, please consult complete product information, a summary of which follows:

Indications: Tension and anxiety states; somatic complaints which are concomitants of emotional factors; psychoneurotic states manifested by tension, anxiety, apprehension, fatigue, depressive symptoms or agitation; symptomatic relief of acute agitation, tremor, delirium tremens and hallucinosis due to acute alcohol withdrawal; adjunctively in skeletal muscle spasm due to reflex spasm to local pathology, spasticity caused by upper motor

neuron disorders, athetosis, stiff-man syndrome, convulsive disorders (not for sole therapy).

Contraindicated: Known hypersensitivity to the drug. Children under 6 months of age. Acute narrow angle glaucoma; may be used in patients with open angle glaucoma who are receiving appropriate therapy.

Warnings: Not of value in psychotic patients. Caution against hazardous occupations requiring complete mental alertness. When used adjunctively in convulsive dis-

orders, possibility of increase in frequency and/or severity of grand mal seizures. May require increased dosage of steady-state convulsant medication; abrupt withdrawal may be associated with temporary increase in frequency and/or severity of seizures. Advise against simultaneous ingestion of alcohol and other CNS depressants. Withdrawal symptoms (similar to those with barbiturates and alcohol) may occur following abrupt discontinuation (convulsions, tremor, abdominal cramps, vomiting and sweating). Use with caution in alcohol addiction-prone individuals under

Respond to one

...ding to her major
... she is a psychoneu-
... nt with severe
... ut according to the
... n she gives of her
... art of the problem
... d like depression.
... ause her problem,
... rimarily one of ex-
... iety, is often accom-
... depressive symptom-
... Valium (diazepam)
... le relief for both—as
... ive anxiety is re-
... depressive symp-
... ciated with it are also
... ved.

... are other advan-
... ing Valium for the
... ent of psychoneu-
... ety with secondary
... symptoms: the
... rapeutic effect of
... pronounced and
... is means that im-
... it is usually apparent
... ent within a few
... er than in a week or

two, although it may take longer in some patients. In addition, Valium (diazepam) is generally well tolerated; as with most CNS-acting agents, caution patients against hazardous occupations requiring complete mental alertness.

Also, because the psychoneurotic patient's symptoms are often intensified at bedtime, Valium can offer an additional benefit. An *h.s.* dose added to the *b.i.d.* or *t.i.d.* treatment regimen can relieve the excessive anxiety and associated depressive symptoms and thus encourage a more restful night's sleep.

For further information on this subject, the following references are provided:

1. Henry BW, *et al*: *Dis Nerv Syst* 30:675-679, Oct 1969.
2. Hollister LE, *et al*: *Arch Gen Psychiatry* 24:273-278, Mar 1971.
3. Claghorn J: *Psychosomatics* 11:438-441, Sept-Oct 1970.

... e because of their predisposi-
... tuation and dependence. In
... lactation or women of child-
... e, weigh potential benefit
... sible hazard.

... s: If combined with other psy-
... or anticonvulsants, consider
... pharmacology of agents em-
... gs such as phenothiazines,
... barbiturates, MAO inhibitors
... ntidepressants may potentiate
... Usual precautions indicated in
... verely depressed, or with latent
... or with suicidal tendencies.

Observe usual precautions in impaired renal or hepatic function. Limit dosage to smallest effective amount in elderly and debilitated to preclude ataxia or over-sedation.

Side Effects: Drowsiness, confusion, diplopia, hypotension, changes in libido, nausea, fatigue, depression, dysarthria, jaundice, skin rash, ataxia, constipation, headache, incontinence, changes in salivation, slurred speech, tremor, vertigo, urinary retention, blurred vision. Paradoxical reactions such as acute hyperexcited states, anxiety, hallucinations, increased muscle



Valium[®] (diazepam)

2-mg, 5-mg, 10-mg tablets

in psychoneurotic
anxiety states
with associated
depressive symptoms

spasticity, insomnia, rage, sleep disturbances, stimulation have been reported; should these occur, discontinue drug. Isolated reports of neutropenia, jaundice; periodic blood counts and liver function tests advisable during long-term therapy.



Roche Laboratories
Division of Hoffmann-La Roche Inc.
Nutley, New Jersey 07110



When a cough spoils your patient's day...

Triaminic® Expectorant

Each teaspoonful (5 ml.) contains:

Triaminic, 25 mg. (phenylpropanolamine hydrochloride, 12.5 mg.; pheniramine maleate, 6.25 mg.; pyrilamine maleate, 6.25 mg.); glyceryl guaiacolate, 100 mg.; alcohol, 5%.

Available in 8-oz. Family Size and 4-oz.

No Rx needed—recommend over the phone.

**The Adult Expectorant
that is great for kids, too.**

Dorsey Laboratories/Division of Sandoz-Wander, Inc./Lincoln, Nebraska 68501

BS-RD

EDITOR

Walter I. Hume, Jr., M.D.

ASSOCIATE EDITOR

Henry B. Asman, M.D.

ASSISTANT EDITORS

Jahn S. Llewellyn, M.D.

A. Evan Overstreet, M.D.

G. Randolph Schradt, M.D.

EXECUTIVE EDITOR

Robert G. Cox

MANAGING EDITOR

Jerry E. Mahaney

ASSISTANT MANAGING EDITOR

Dianne Lobes

DEPARTMENTAL EDITORS

Paul C. Grider, Jr., M.D., Scientific

Jahn W. Greene, Jr., M.D., Maternal
Mortality

BOARD OF CONSULTANTS
ON SCIENTIFIC ARTICLES

Term Expires July 1, 1977

Lowrence C. Goldberg, M.D.

Carl H. Scott, M.D.

Richard K. Jelsmo, M.D.

James A. Meyers, M.D.

Russell R. Rice, M.D.

William J. Collis, M.D.

Charles E. Dobbs, M.D.

Term Expires July 1, 1976

Gehrig M. Robinson, M.D.

Mork S. Sexter, M.D.

Thomas E. Booth, M.D.

Patrick L. Jospser, M.D.

Oscar W. Thompson, M.D.

Stephen C. Schindler, M.D.

Von R. Jenkins, M.D.

John W. Miller, M.D.

Term Expires July 1, 1975

Robert E. Arnold, M.D.

Robert A. Holl, M.D.

Chrismon S. Jackson, Jr., M.D.

Lofoyette G. Owen, M.D.

Anne Richmon, M.D.

Ruel T. Routt, M.D.

Frank G. Simon, M.D.

Leslie Von Nostrand, M.D.

Published at 3532 Ephraim McDowell Drive,
Louisville, Ky. 40205

Phone (Area Code 502) 452-6324

Subscription \$10 (Members \$5)

Single Copy \$1

Second-class postage paid at Louisville, Ken-
tucky. Acceptance for mailing at special rates
postage provided in Section 1103, act of Oct. 3,
1917, authorized May 25, 1920.

Journal of The K E N T U C K Y Medical Association

Contents

SCIENTIFIC ARTICLES

Survival After Operation For Abdominal Aortic Aneurysms

Linda Hays Mosely, M.D., Hiram C. Polk, Jr.,
M.D., and Philip J. Harbrecht, M.D.595

Wegener's Granulomatosis

Harold J. Schupbach, M.D.600

Specific Indications For Parenteral Iron Therapy— Experience With One Hundred Patients Using Intra- venous Iron Dextran

Wilk O. West, M.D.604

Arterial Blood Gases (Medical Progress)

Robert W. Powell, M.D.609

Acute Pancreatitis—A Continuing Dilemma (Grand Rounds)

Kimball I. Maull, M.D. and William L. Dowden,
M.D.616

EDITORIAL

ADR579

ORGANIZATION

Drs. Hull, Makk Elected To Top KMA Offices631

Drs. Parks, Maxwell Assume Leadership of KMA Board631

Auxiliary Installs Mrs. McElvein, Elects Mrs. Montgomery631

Dr. Van Meter, Hasty Riddle Honored By KMA632

1975 Nominating Committee Chosen By Delegates632

Fine Words From Fine People—Guests Praise Annual Meeting ...632

Summary Of Delegates' Actions On Reports And Resolutions For
1974 KMA Annual Meeting633

Annual Meeting Roll Call634

Preschool Immunization Campaign Urged Nationwide635

REGULAR FEATURES

President's Page577

Postgraduate Opportunities ..580

Maternal Mortality621

Blue Cross and Blue Shield

Utilization Review626

Corrections636

KENTUCKY MEDICAL ASSOCIATION

BOARD OF TRUSTEES—1974-1975

Officers

President	HOYT D. GARDNER 508 Watterson City Bldg., Louisville 40218 (502) 452-2684 ..1975
President-Elect	DAVID A. HULL 2368 Nicholasville Rd., Lexington 40503 (606) 277-5711 ..1975
Immediate Past President	FRED C. RAINEY 912 Woodland Dr., Elizabethtown 42701 (502) 765-4147 ..1975
Vice-President	LASZLO MAKK 3101 Breckinridge Ln., Louisville 40220 (502) 459-2055 ...1975
Secretary	S. RANDOLPH SCHEEN 1163 Medical Arts Bldg., Louisville 40217 (502) 451-1661 ..1975
Treasurer	KEITH P. SMITH Medical Arts Bldg., Corbin 40701 (606) 528-3211 .....1975
Speaker, House of Delegates ...	CARL COOPER, JR. Bedford 40006 (502) 255-3282 .....1977
Vice-Speaker	RICHARD B. McELVEIN 2121 Nicholasville Rd., Lexington 40503 (606) 277-7129 ..1977
Chairman, Board of Trustees ...	PAUL J. PARKS 1109 State St., Bowling Green 42101 (502) 781-5111 ....1975
Vice-Chairman	EDWARD N. MAXWELL St. Joseph Infirmary, Louisville 40217 (502) 636-7561 ....1975

Delegates to the A.M.A.

J. THOS. GIANNINI, Suite 3E, Suburban Medical Plaza, Louisville (502) 897-2555	Jan. 1975-Dec. 1976
CHAS. G. BRYANT, (Alt.) 3357 Medical Arts Bldg., Louisville (502) 452-1558	Jan. 1975-Dec. 1976
FRED C. RAINEY, 912 Woodland Dr., Elizabethtown 42701 (502) 765-4147	Sept. 1974-Dec. 1975
WILLIAM W. HALL, (Alt.) Mayfair Square, Owensboro (502) 684-6255	....Jan. 1974-Dec. 1975
DAVID B. STEVENS, 2101 Nicholasville Rd., Lexington (606) 278-3481	....Jan. 1974-Dec. 1975
THOMAS L. HEAVERN, (Alt.) 2435 Alexandria, Highland Hgts. (606) 441-7600	Jan. 1974-Dec. 1975

Trustees

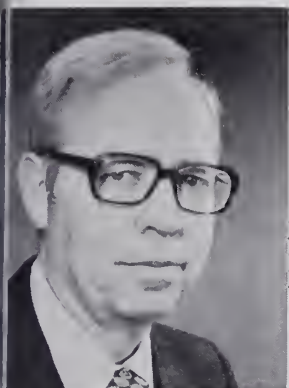
1st	W. EUGENE SLOAN, 2320 Broadway, Paducah 42001 (502) 443-4581	.....1977
2nd	CHARLES C. KISSINGER, Atkinson Park, Henderson 42420 (502) 826-6271	.....1976
3rd	FRANK R. PITZER, Jennie Stuart Memorial Hospital, Hopkinsville 42240 (502) 886-5221	.....1977
4th	CHAS. B. SPALDING, 201 S. 5th, Bardstown, 40004 (502) 348-5968	.....1977
5th	EDWARD N. MAXWELL, St. Joseph Infirmary, Louisville 40217 (502) 636-7461	....1975
6th	PAUL J. PARKS, 1109 State St., Bowling Green 42101 (502) 781-5111	.....1975
7th	JOHN P. STEWART, King's Daughters Memorial Hospital, Frankfort 40601 (502) 875-5240	.....1976
8th	RICHARD J. MENKE, 823 Scott St., Covington 41011 (606) 431-3048	.....1975
9th	JAMES L. FERRELL, Bourbon Medical Ctr., Paris 40361 (606) 987-2200	.....1976
10th	JAMES B. HOLLOWAY, JR., 1517 Nicholasville Rd., Lexington 40503 (606) 278-2334	....1976
11th	R. EUGENE BOWLING, 527 W. Main, Richmond 40475 (606) 623-3754	.....1975
12th	WILLIAM T. WATKINS, 500 Bourne Ave., Somerset 42501 (606) 678-8155	.....1977
13th	J. WESLEY JOHNSON, 2301 Lexington Ave., Ashland 41101 (606) 325-1151	....1976
14th	JERRY D. FRAM, Euclid Avenue, Paintsville 41240 (606) 789-3578	.....1977
15th	HAROLD L. BUSHEY, 406 Knox St., Box 770, Barbourville 40906 (606) 546-3024	..1975

BUYERS GUIDE

NOVEMBER BUYERS GUIDE FOR JOURNAL OF KMA 1974

Abbott Laboratories	627	McNeil Laboratories, Inc.	593
Academy of Medicine of Cincinnati	637	Medical Protective Company	620
American Cancer Society	638	Merck Sharp and Dahme	586-588
Blue Cross and Blue Shield of Kentucky	592	Pharmaceutical Manufacturers Association	584-585
Burroughs Wellcome Company	581	A. H. Robins Company	589-591
Darsey Laboratories	574	Roche Laboratories	572-573, 582-583, 624-625, 639-640
General Leasing Corporation	623	G. D. Seorle and Company	628-629
Kentucky Department of Personnel	637	Smith, Kline and French Company	630
Eli Lilly and Company	594	Southern Optical	637
		University of Kentucky Medical Center	636

MESSAGE FROM THE PRESIDENT



To Continue

ON this page and with a few minutes of your time, we can visit together some of the student issues which are our concerns today. The expressions will be national consensus thinking, condensed for reasons of space and for your quick exposure. The subjects are pivotal and the final solutions, while approaching, are not yet at hand.

This day's item is continuing medical education—it is picked because (a) it's appropriate, (b) KMA House of Delegates have approved (unanimously) its consideration, (c) it's still within the profession's purview and not legislated or directed by anyone else—yet.

Here are general agreement points for a continuing education program:

1. Conducted in an appropriate setting, such as a medical center, hospital medical society facility or group meeting occasion. This will allow adequate attendance to insure a good program—avoid duplication of time and people and provide maximum accessibility for all.

2. Voluntary but have recommendations of exposure that can be reasonably attained during a specific period.

3. Such credits as a physician attains during a time frame will be documented by a physician's group (State Medical Association) so that there is irrefutable evidence that each provider of care is maintaining competency.

4. The educational experience will be practical—up to date with the schedule, done so as to involve a minimal amount of time.

5. The program will not be used in a punitive, restrictive or a disenfranchising manner so as to harass the practicing physicians or cause his patients restriction or loss of care.

6. The programs will not be done as a classroom teacher-pupil but as professional experts meeting on common ground to see the continuation and enhancement of patient care, using all the latest armamentarium.

7. The reporting of continuing education credits will be done by the physicians group (State Medical Association) so that people generally and other interested bodies will be appropriately exposed, so as to remove all reasonable doubt of competency.

8. Where there is evidence that a physician is defaulting in educational opportunity, he will be so notified by his peer group. Continuous refusal to participate will be negotiated under the direction of his peers leading to possible exclusion from organized medical associations until proficiency is documentable.

Should We Do This: Yes—it's in the historical traditions of the professions; It's *done* by physicians; It's maintaining standards and professional capability; It's reasonable. Most physicians are already doing such updating on their own and this will provide a documentary record. It will prevent a few malefactors from causing a bad image for all.

Hoyt Gardner

KENTUCKY MEDICAL ASSOCIATION HOUSE OF DELEGATES RESOLUTION

Introduced by: KMA Medical Education Committee

Subject: Continuing Education Requirements for Kentucky Physicians

WHEREAS, one of the sincere desires of the conscientious physician, for himself, his patients, and his colleagues, is to maintain the practice of medicine at a high level of performance based on current knowledge, and

WHEREAS, a national trend increasingly calls physicians to be publicly accountable for their efforts in continuing medical education, and

WHEREAS, a systematic program for organizing and stimulating physician participation in continuing education could accomplish acceptable exposure to or participation in continuing medical education by all physicians, and

WHEREAS, Public Law 92-603 established both a national and a Kentucky requirement for a PSRO, with a concurrent systematic educational mechanism for developing a response to PSRO identified educational needs of physicians, and

WHEREAS, a number of specialty organizations have either established or are in the process of establishing educational requirements viewed as minimally essential and proper to the continued practice of the physician in the respective specialty field, therefore be it

RESOLVED, that the KMA endorse and hereby call upon its staff to administratively establish a system for insuring the systematic participation of all physicians in continuing education based on the following components:

- A. A continuing educational requirement in some detail, and by specialty, as described in the document: KMA Continuing Education Program for Physicians.
- B. A proviso that the plan as herein adopted by the KMA may be modified from time to time, specialty by specialty, as recommended by respective specialty societies and approved by the KMA Board of Trustees.
- C. A system for the collection of records and data, pertinent to establishing the compliance of physicians with those educational standards, which is open to all physicians licensed in Kentucky, whether KMA members or not.
- D. Every physician to be allotted a period of three years from July 1, 1975, to furnish evidence of his compliance with the continuing education requirements of his specialty as spelled out in A. above, and provided that continued compliance after the initial three years will be based on the same standards for subsequent three year periods — or less, as indicated in the KMA plan.

and be it further

RESOLVED, that the Kentucky Board of Medical Licensure be requested to require (by regulation) satisfactory participation in continuing education for re-registration of the license to practice medicine.

September, 1974



EDITORIALS



ADR

IN recent months adverse drug reactions have taken the attention of Congressional hearings and, as noted in *The Medical Tribune*, the FDA has no jurisdiction over drug critics so that they are free to make false and misleading claims.

Testimony was taken that, on the basis of two series of deaths associated with adverse drug reaction, extrapolation would indicate an annual rate of 60,000 to 140,000 deaths due to drugs. It is assumed that physician irresponsibility in the form of unnecessary and over-prescription of drugs is the cause for this high rate, and that legislation such as Senator Kennedy's Drug Utilization Improvement Bill is necessary—this bill would set up an adverse drug reaction reporting program and require the HEW Secretary to recommend a drug safety assurance plan to curb improper prescribing. It advises the Secretary to consider a review system for prescribing and administering drugs.

On what basis is the extrapolation of 60,000 to 140,000 deaths per year due to drugs made? On two series of deaths: one of 11 deaths, eight of whom had acute lymphoblastic leukemia, Hodgkins' disease, acute myeloblastic leukemia or lupus nephritis; the other of 27 deaths, many of whom were desperately ill, eight with malignancies. The testimony did not make note of these diagnoses. Both series were on Medical Services. The extrapolation was to 32 million hospital admissions including obstetric, gynecologic, surgical, pediatric, ophthalmologic, neurologic and psychiatric admissions. Psychiatric services experience one-seventh and surgical services one-fifth the incidence of adverse drug reactions found in medical services. The U.S. National Center for Health Services notes from all death certificates in 1968 that the total number of deaths from adverse drug reactions was 357. The actual number is surely closer to 357 than to 140,000.

The highly publicized over-prescription and misutilization of drugs by physicians involves a very small fraction of the doctors and does not lead to this spuriously high number of deaths. A real threat to the health of many patients exists in such public pronouncements which can lead to fear and avoidance of drugs by patients who need them for maintenance of health and life. No good can come of removing prescription judgement from the physician to Congress.

AEO



POSTGRADUATE OPPORTUNITIES



IN KENTUCKY

December

- 12 Norton-Children's Hospitals and the Ky. Chapter of American Academy of Family Practice Post-Graduate Seminar, "Infectious Disease and Antibiotics", Norton-Children's Hospitals, Brook and Chestnut, Louisville
- 12 Annual A. O. Goodman Lecture, Ramada Inn-Bluegrass Convention Center, Louisville
- 20-21 "Endocrinology for the Practicing Physician",* University of Kentucky Medical Center, Lexington. Fee \$75

January 1975

- 15-16 KAFP Northern Kentucky Scientific Seminar, Rowntowner Motor Inn, Fort Mitchell

IN SURROUNDING STATES

November

- 17-20 68th Annual Scientific Meeting of the Southern Medical Association, Atlanta, Ga.
- 21 "Gout and Other Metabolic Arthritides", University of Cincinnati Medical Center

December

- 11-12 Conference on "Pediatric Gastroenterology",** Stouffer's Indianapolis Inn, by Indiana University Medical Center

January 1975

- 25 Ventilatory Problems Workshop, by Oak Ridge Hospital, at Holiday Inn, Oak Ridge, Tennessee

AMA Clinical Convention, Portland, Oregon — November 30-December 4, 1974

*For further information, contact: Frank R. Lemon, M.D., Continuing Education, College of Medicine, University of Kentucky, Lexington 40506

**For further information, contact: Joseph F. Fitzgerald, M.D., 1100 W. Michigan St., Indianapolis, Ind. 46202

SCHEDULE OF UPCOMING PROGRAMS ON NETWORK FOR CONTINUING MEDICAL EDUCATION

(For listing of stations, see October issue, page 566)

November 18-December 1

THE HAND AS AN INDICATOR OF SYSTEMIC DISEASE, with Marguerite Lerner, M.D., Clinical Professor of Dermatology, Yale University School of Medicine, New Haven, Connecticut.

PARASITIC INFESTATION: SCABIES, with Silas E. O'Quinn, M.D., Professor of Dermatology and Dean of Medicine; and Harold Trapido, Ph.D., Professor of Tropical Medicine and Medical Parasitology, both at Louisiana State University School of Medicine in New Orleans.

IMPOTENCE, with Philip A. Sarrel, M.D., Associate Professor of Obstetrics and Gynecology at Yale University Medical School, and Lorna Sarrel, Co-Director, Human Sexuality Program, Yale University Student Mental Hygiene Department in New Haven, Connecticut.

December 2-December 15

SEX IN AGING AND DISEASE, with Philip A. Sarrel, M.D., Associate Professor of Obstetrics and Gynecology at Yale University Medical School, and Lorna Sarrel, Co-Director, Human Sexuality Program at Yale University Student Mental Hygiene Department, New Haven, Connecticut.

MEDICAL ADVANCES INSTITUTE, with James L. Henry, M.D., President of the Ohio State Medical Association; Paul Y. Ertel, M.D., Director of the MAI Clinical Systems in Ohio; William A. Millhon, M.D., Chief Physician Advisor, Riverside-Methodist Hospital, Columbus, Ohio.

FEMALE STRESS INCONTINENCE: DIAGNOSIS AND DECISION, with Vincent J. O'Connor, Jr., M.D., Professor of Urology, Chairman, Department of Urology, Northwestern Memorial Hospital, Chicago.



A half-ounce of prevention

Use it to prevent a topical infection. Or to treat one that's already started.

In either case, it's good medicine. Whether for lacerations, burns, open wounds, IV catheter or surgical aftercare.

Neosporin® Ointment provides broad antibacterial coverage against common susceptible pathogens. And since it contains three antibiotics that are rarely used systemically, the risk of sensitization is reduced.

Neosporin Ointment. A half-ounce of prevention. Also available in a full ounce of prevention and in convenient foil packets.

Neosporin Ointment carried on Apollo and Skylab missions.

Neosporin® Ointment (polymyxin B-bacitracin-neomycin)

Each gram contains: Aerosporin® brand Polymyxin B Sulfate 5,000 units; zinc bacitracin 400 units; neomycin sulfate 5 mg (equivalent to 3.5 mg neomycin base); special white petrolatum qs.
In tubes of 1 oz and 1/2 oz and 1/32 oz (approx.) foil packets.

Indications: Therapeutically, used as an adjunct to appropriate systemic topical infections, primary or secondary, due to susceptible organisms: • infected burns, skin grafts, surgical incisions, otitis externa, dermatoses (impetigo, ecthyma, sycosis vulgaris, paronychia) • secondarily, the ointment may be used to prevent bacterial contamination in grafts, incisions, and other clean lesions. For abrasions, minor cuts accidentally incurred, its use may prevent the development of infection.

Contraindications: Not for use in the eyes or external ear canal if the eardrum is perforated. This product is contraindicated in those individuals who have known hypersensitivity to any of the components.

Warnings: Because of the potential hazard of nephrotoxicity and ototoxicity associated with neomycin, care should be exercised when using this product in treating burns, trophic ulceration and other extensive conditions where

absorption of neomycin is possible. In burns where more than 20 percent of the body surface is affected, especially if the patient has impaired renal function or is receiving other aminoglycoside antibiotics concurrently, not more than one application a day is recommended.

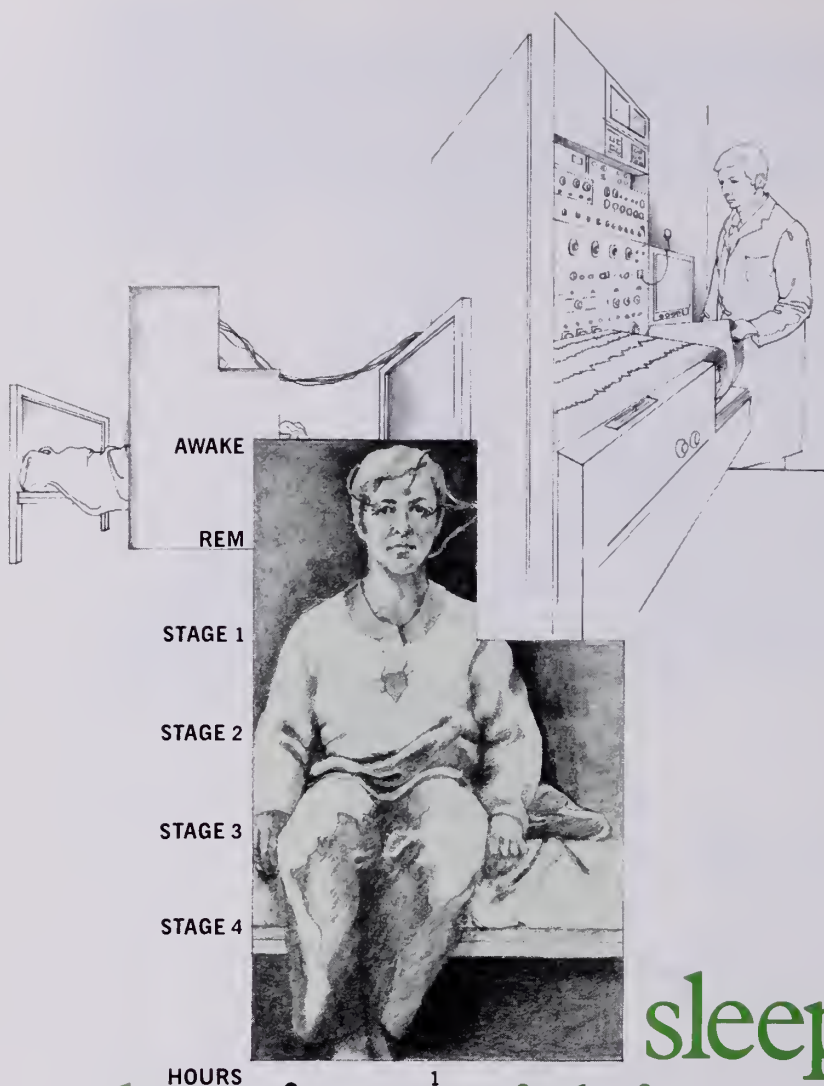
PRECAUTIONS: As with other antibacterial preparations, prolonged use may result in overgrowth of nonsusceptible organisms, including fungi. Appropriate measures should be taken if this occurs.

ADVERSE REACTIONS: Neomycin is a not uncommon cutaneous sensitizer. Articles in the current literature indicate an increase in the prevalence of persons allergic to neomycin. Ototoxicity and nephrotoxicity have been reported (see Warning section).

Complete literature available on request from Professional Services Dept. PML.



Burroughs Wellcome Co.
Research Triangle Park
North Carolina 27709



sleep
begins within
17 minutes, on average ...
an initial benefit of

Dalmane[®]
(flurazepam HCl) proved by a
**22-night clinical study of insomnia patients
in the sleep research laboratory and at home¹**

Three insomnia patients selected for difficulty falling asleep were administered Dalmane (flurazepam HCl) 30 mg for 14 consecutive nights. Placebo was given for four nights prior to and four nights after Dalmane. Physiologic tracings on Dalmane nights 1-3 showed sleep induction time averaged 13.90 minutes; on Dalmane nights 12-14, 18.80 minutes. Combined average for the 6 monitored drug nights was 16.35 minutes.¹

Time Required
to Fall Asleep (4 Studies,
Subjects 2-5)



confirmed by clinical studies in four geographically separated sleep research laboratories²⁻⁵

Using a 14-night protocol involving eight insomniac and eight normal subjects, four studies confirmed the sleep-inducing effectiveness of Dalmane (flurazepam HCl) and the reproducibility of this response. On average, one 30-mg capsule induced sleep within 17 minutes. In all these studies, Dalmane induced sleep rapidly, reduced nighttime awakenings, and provided 7 to 8 hours of sleep without repeating dosage.²⁻⁵

Dalmane (flurazepam HCl) induces and maintains sleep, with relative safety

Dalmane is generally well tolerated; morning "hang-over" has been relatively infrequent. While dizziness, drowsiness, lightheadedness and the like have been noted most often, particularly in the elderly and debilitated, physicians should be aware of the possibility of more serious reactions, as noted below.

When prescribing Dalmane (flurazepam HCl), please consult Complete Product Information, many of which follows:

Indications: Effective in all types of insomnia characterized by difficulty in falling asleep, frequent nocturnal awakenings and/or early morning awakening; in patients with recurring insomnia or poor sleeping habits; and in acute or chronic medical situations requiring restful sleep. Since insomnia is often transient and intermittent, prolonged administration is generally unnecessary or recommended.

Contraindications: Known hypersensitivity to flurazepam HCl.

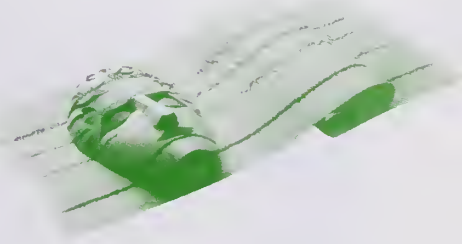
Warnings: Caution patients about possible combined effects with alcohol and other CNS depressants. Caution against hazardous occupations requiring complete mental alertness (operating machinery, driving). Use in women who are or may become pregnant only when potential benefits have been weighed against possible hazards. Not recommended for use in children under 15 years of age. Though physical and psychological dependence have not been reported on recommended doses, use caution in administering to alcohol-prone individuals or those who might increase dosage.

Precautions: In elderly and debilitated, initial dosage should be reduced to 15 mg to preclude oversedation, dizziness and/or ataxia. Combined with other drugs having hypnotic or CNS-depressant effects, consider potential additive effects. Employ usual precautions in patients who are severely depressed, or with latent depression or suicidal tendencies. Periodic blood counts and liver and kidney function tests are advised during repeated therapy. Observe usual precautions in presence of impaired renal or hepatic function.

Adverse Reactions: Dizziness, drowsiness, lightheadedness, ataxia, and falling have occurred, particularly in elderly debilitated patients. Severe sedation, lethargy, disorientation and, probably indicative of drug intolerance or overdose, have been reported. Also reported were headache, heartburn, upset stomach, nausea, vomiting, diarrhea, constipation, GI pain, nervousness, talkativeness, apprehension, irritability, weakness, palpitations, muscle pains, body and joint pains and GU complaints. There have been rare occurrences of sweating, flushes, difficulty in focusing, blurred vision, burning eyes, faintness, hypotension, shortness of breath, pruritus, skin rash, dry mouth, bitter taste, excessive salivation, anorexia, euphoria, depression, slurred speech, confusion, nervousness, hallucinations, and elevated SGOT, SGPT, total and conjugated bilirubins and alkaline phosphatase. Paradoxical reactions, excitement, stimulation and hyperactivity, have also been reported in rare instances.

Dosage: Individualize for maximum beneficial effect. *Adults:* 30 mg initial dosage; 15 mg may suffice in some patients. *Elderly or debilitated patients:* 15 mg initially until response is determined.

Form: Capsules containing 15 mg or 30 mg flurazepam HCl.



when restful sleep is indicated

Dalmane[®]

(flurazepam HCl)

One 30-mg capsule h.s. — usual adult dosage (15 mg may suffice in some patients).

One 15-mg capsule h.s. — initial dosage for elderly or debilitated patients.

- induces sleep within 17 minutes, on average
- reduces nighttime awakenings
- sustains sleep 7 to 8 hours, on average, without repeating dosage



ROCHE LABORATORIES
Division of Hoffmann-La Roche Inc.
Nutley, New Jersey 07110

REFERENCES: 1. Kales A, et al: *Arch Gen Psychiatry* 23:226-232, Sep 1970
Racine I, Williams RL, Smith JR: The sleep laboratory in the investigation of sleep and disturbances. Scientific exhibit at the 124th annual meeting of the American Psychiatric Association, Washington DC, May 3-7, 1971
Post JD Jr: Data on file, Medical Department, Hoffmann-La Roche Inc, Nutley NJ
Gel GW: Data on file, Medical Department, Hoffmann-La Roche Inc, Nutley NJ
Bement WC: Data on file, Medical Department, Hoffmann-La Roche Inc, Nutley NJ

The Role of the Detail Man

Dr. Willard Gobbell
Family Physician
Encino, California



Dr. Jeremiah Stamler
Chairman
Department of Community
Health and Preventive
Medicine, and Dingman
Professor of Cardiology
Northwestern University
Medical School



"I may be prejudiced, but I am very much in favor of the detail man I meet. Most of them are knowledgeable about the drugs they promote and can be a great help in accounting me with new medication."

Family Physician's Perception

I think that most general practitioners in this area feel very good about the detail man. Over the years I have gotten to know many of the men who visit me regularly. In turn they have become aware of my particular interests and the nature of my practice. They, therefore, limit their discussion as far as possible to the areas of interest to me. Since I usually see the representative again in future visits, it is in his best interest to supply me with the most honest, factual, as well as up-to-date information about his products.

"In the total picture of dealing with health problems in this country there is a potential for detail men to play a meaningful role."

The Positive Influence

My contact with representatives and salesmen of the pharmaceutical industry is the type of contact that people in a medical or research people, and academic people have and that's in all lines on a somewhat different level than that of the practicing physician.

Let me touch on how I personally perceive the role of the sales representative. These men reach large numbers of health professionals. Thus they could be — at times actually are — disseminators of useful information. They could consistently serve a real educational function in their ability to discuss their products.

At present they do distribute printed material, brochures and pamphlets — some of it scientifically sound and therefore truly useful — as well as some excellent material produced by the pharmaceutical industry. When they function in

Opinion
&
Dialogue

Source of Information?

es, with certain reservations. Average sales representative great fund of information the drug products he is responsible for. He is usually able to answer most questions fully and accurately. He can also supply lists of articles that contain a great deal of information. Here, exercise some caution. I usually suspect most of the statements and opinions that I find in the literature and studies which come from the larger teaching facilities. Without saying that a physician should also rely on other sources for his information on pharmacology.

Role of Sales Representatives

Ideally, a candidate for the position as a sales representative of a pharmaceutical company should be a graduate pharmacist with a questioning mind. I don't think this is possible in every case, but it becomes the responsibility

of the pharmaceutical company to train these individuals comprehensively. It is of very great importance that the detail man's knowledge of the product he represents be constantly reviewed as well as updated. This phase of the sales representative's education should be a major responsibility of the medical department of the pharmaceutical company.

I am certain that most of these companies take special care to give their detail men a great deal of information about the products they produce—information about indications, contraindications, side effects and precautions. Yet, although most of the detail men are well informed, some, unfortunately, are not. It might be helpful if sales representatives were reassessed every few years to determine whether or not they are able to fulfill their important function. Incidentally, I feel the same way about periodic assessments of everyone

in the health care field, whether they be general practitioners, surgeons or salesmen.

Value of Sampling

I personally am in favor of limited sampling. I do not use sampling in order to perform clinical testing of a drug. I feel that drug testing should rightly be left to the pharmacology researcher and to the large teaching institutions where such testing can be done in a controlled environment.

I do not use samples as a "starter dose" for my patients. I do, however, find samples of drugs to be of value in that they permit me to see what the particular medication looks like. I get to see the various forms of the particular medication at first hand, and if it is in a liquid form I take the time to taste it. In that way I am able to give my patients more complete information about the particular medications that I prescribe for them.

ity they are indeed useful; particularly in the fact that they provide a broadly based educational material and serve not just as "pushers" of their drugs.

Other Side of the Coin

Obviously, the pharmaceutical companies are not producing all educational material as a labor of love—they are in the business of selling products for profit. In this regard, the sales representative can have a negative influence on the practicing physician, both by presenting a one-sided picture of his product, and by encouraging the physician to depend too heavily on the sales representative for his total therapy. In many ways, the salesman has often distorted objective reality and undermined his potential role as an educator.

Industry Responsibility

Since the detail man must be an educational resource as well as a representative of his particular pharmaceutical company, he should be carefully selected and

thoroughly trained. That training, of course, must be an ongoing one. There must be a continuing battle within and with the pharmaceutical industry for high quality not only in the selection and training of its sales representatives, but also in the development of all of its promotional and educational material.

The industry must be ready to accept constructive as well as corrective criticism from experts in the field and consumer spokesmen, and be willing to accept independent peer review. The better educated and prepared the salesman is, the more medically accurate his materials, the better off the pharmaceutical industry, health professionals and the public—i.e., the patients—will be.

Physician Responsibility

The practicing physician is in constant need of up-dated information on therapeutics, including drugs. He should and does make use of drug information and answers to specific questions supplied by the pharmaceutical representative. However, that informa-

tion must not be his main source of continuing education. The practitioner must keep up with what is current by making use of scientific journals, refresher courses, and information received at scientific meetings.

The practicing physician not only has the right, but has the responsibility to demand that the pharmaceutical company and its representatives supply a high level of valid and useful information. I feel certain that if such a high level is demanded by the physician as well as the public, this demand will be met by an alert and concerned pharmaceutical industry.

From my experience, my impression is that sectors of the pharmaceutical industry are indeed unethical. I challenge the industry as a whole to live up to that word in its finest sense.

Pharmaceutical
Manufacturers Association
1155 Fifteenth Street, N.W.
Washington, D. C. 20005



The more physicians consider the hemodynamics of lowering blood pressure...

Most physicians now agree on the importance of reducing blood pressure in the hypertensive patient. But high blood pressure exists, of course, only as part of a complete clinical picture. The hemodynamic profile of well-established essential hypertension is characterized by elevated arterial blood pressure, normal cardiac output, and increased total peripheral resistance.

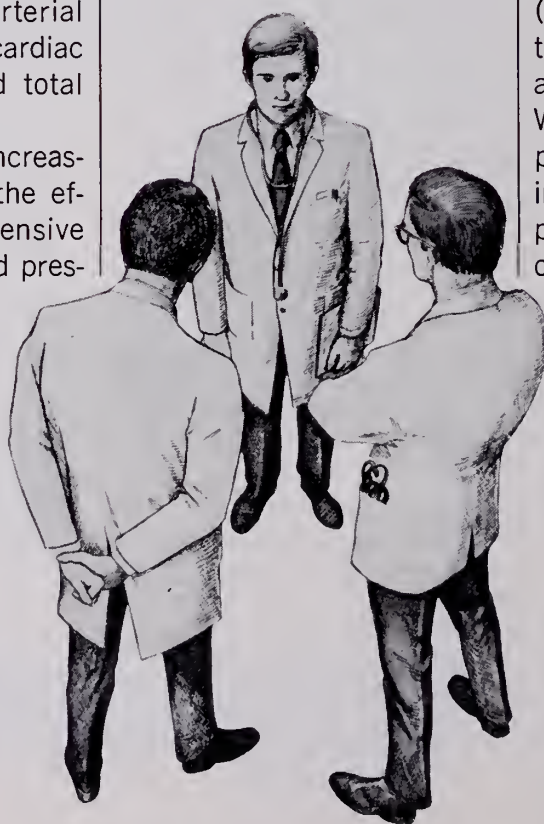
And so, physicians are increasingly concerned with the effects of an antihypertensive agent not only on blood pres-

sure itself but also on the hemodynamic pattern—in short, with the total effect of the drug. *Does it indeed help lower blood pressure effectively? Is peripheral resistance reduced? Are cardiac output and renal functions main-*

tained? And, also, is there likely to be drug-induced postural hypotension serious enough to pose a threat to the patient's cerebrovascular status?

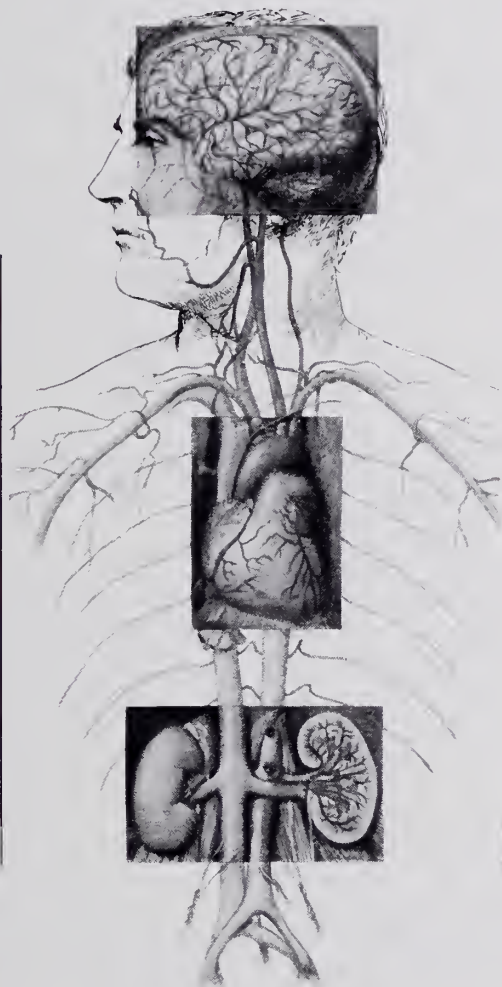
With this emphasis on overall drug performance has come growing reliance on ALDOMET (Methyldopa, MSD) in the treatment of sustained moderate hypertension.

With its unique hemodynamic profile, ALDOMET has drawn increasing attention and approval from physicians. First of course, for its efficacy in



the more physicians rely on this unique antihypertensive

g blood pressure. But
re other considerations
Cardiac output is usu-
ntained with no cardiac
ation; in some patients
heart rate is actually
Peripheral resistance
parently reduced.
MET does not usually
omise existing renal
n; it generally does not
renal blood flow, glo-
r filtration rate, or fil-
tration. And ALDOMET
does not cause sympto-
postural or exercise
nsion.



Contraindications include active hepatic disease and known sensitivity to the drug. Use with caution in patients with a history of liver disease or dysfunction. Not recommended in pheochromocytoma or pregnancy.

It is important to recognize that a positive Coombs test, hemolytic anemia, and liver disorders may occur with methyldopa therapy. The rare occurrences of hemolytic anemia or liver disorders could lead to potentially fatal complications unless properly recognized and managed. For more details see the brief summary of prescribing information.

In most cases of sustained moderate hypertension

TABLETS, 250 mg and 500 mg

ALDOMET[®]

(METHYLDOPA | MSD)

smoothly lowers blood pressure

brief summary of prescribing information,
see following page.

NEW
now available in
500 mg TABLETS
as well as the standard
250-mg tablets

In most cases of
sustained moderate hypertension

ALDOMET[®] (METHYLDOPA MSD)

smoothly lowers blood pressure

Contraindications: Active hepatic disease, such as acute hepatitis and active cirrhosis. Known sensitivity. Not recommended in pheochromocytoma. Unsuitable in mild or labile hypertension responsive to mild sedation or thiazide therapy. Use cautiously in patients with history of previous liver disease or dysfunction.

Warnings: It is important to recognize that a positive Coombs test, hemolytic anemia, and liver disorders may occur with methyldopa therapy. The rare occurrences of hemolytic anemia or liver disorders could lead to potentially fatal complications unless properly recognized and managed. Read this section carefully to understand these reactions.

With prolonged methyldopa therapy, 10% to 20% of patients develop a positive direct Coombs test, usually between six and twelve months of therapy. Lowest incidence is at daily dosage of 1 g or less. This on rare occasions may be associated with hemolytic anemia, which could lead to potentially fatal complications. One cannot predict which patients with a positive direct Coombs test may develop hemolytic anemia. Prior existence or development of a positive direct Coombs test is not in itself a contraindication to use of methyldopa. If a positive Coombs test develops during methyldopa therapy, determine whether hemolytic anemia exists and whether the positive Coombs test may be a problem. For example, in addition to a positive direct Coombs test there is less often a positive indirect Coombs test which may interfere with cross matching of blood.

At the start of methyldopa therapy, it is desirable to do a blood count (hematocrit, hemoglobin, or red cell count) for a baseline or to establish whether there is anemia. Periodic blood counts should be done during therapy to detect hemolytic anemia. It may be useful to do a direct Coombs test before therapy and at six and twelve months after the start of therapy. If Coombs-positive hemolytic anemia occurs, the cause may be methyldopa and the drug should be discontinued. Usually the anemia remits promptly. If not, corticosteroids may be given and other causes of anemia should be considered. If the hemolytic anemia is related to methyldopa, the drug should not be reinstituted. When methyldopa causes Coombs positivity alone or with hemolytic anemia, the red cell is usually coated with gamma globulin of the IgG (gamma G) class only. The positive Coombs test may not revert to normal until weeks to months after methyldopa is stopped.

Should the need for transfusion arise in a patient receiving methyldopa, both a direct and an indirect Coombs test should be performed on his blood. In the absence of hemolytic anemia, usually only the direct Coombs test will be positive. A positive direct Coombs test alone will not interfere with typing or cross matching. If the indirect Coombs test is also positive, problems may arise in the major cross match and the assistance of a hematologist or transfusion expert will be needed.

Fever has occurred within first three weeks of therapy, sometimes with eosinophilia or abnormalities in liver function tests, such as serum alkaline phosphatase, serum transaminases (SGOT, SGPT), bilirubin, cephalin cholesterol flocculation, prothrombin time, and bromsulphalein retention. Jaundice, with or without fever, may occur, with onset usually in the first two to three months of therapy. Rarely fatal hepatic necrosis has been reported. These hepatic changes may represent hypersensitivity reactions; periodic determination of hepatic function should be done particularly during the first six to twelve weeks of therapy or

whenever an unexplained fever occurs. If fever, abnormalities in liver function tests, or jaundice appear, stop therapy with methyldopa. If caused by methyldopa, the temperature and abnormalities in liver function characteristically have reverted to normal when the drug was discontinued. Methyldopa should not be reinstituted in such patients. Rarely, reversible reduction in leukocyte count with primary effect on granulocytes has been seen. Reversible thrombocytopenia has occurred rarely. When used with other antihypertensive drugs, potentiation of antihypertensive effect may occur.

Use in Pregnancy and Childbearing Age—Not recommended in pregnancy. In women of childbearing age, weigh potential benefits against possible fetal hazards.

Precautions: Methyldopa may interfere with measurement of: uric acid by the phosphotungstate method, creatinine by the alkaline picrate method, and SGOT by colorimetric methods. Since methyldopa causes fluorescence in urine samples at the same wavelengths as catecholamines, spuriously high levels of urinary catecholamines may be reported. This will interfere with the diagnosis of pheochromocytoma. Stop drug if involuntary choreoathetotic movements occur in patients with severe bilateral cerebrovascular disease. Patients may require reduced doses of anesthetics; hypotension occurring during anesthesia usually can be controlled with vasopressors. Hypertension has occurred after dialysis in patients on methyldopa because the drug is removed by this procedure.

Adverse Reactions: Sedation, usually transient, may be seen during initial therapy or when dosage is increased. Headache, asthenia, or weakness may be noted as early, transient symptoms. Symptoms associated with effective lowering of blood pressure are occasionally seen and include dizziness, lightheadedness, and symptoms of cerebrovascular insufficiency. Angina pectoris may be aggravated. Symptoms of orthostatic hypotension may occur; if symptoms occur, reduction of dosage is suggested. Bradycardia, nasal stuffiness, mild dryness of mouth, and gastrointestinal symptoms including distention, constipation, flatulence, and diarrhea occur occasionally; these generally can be relieved by reducing dosage. Nausea and vomiting have been reported in only a few patients. Sore tongue or "black tongue," pancreatitis, and inflammation of salivary glands may occur.

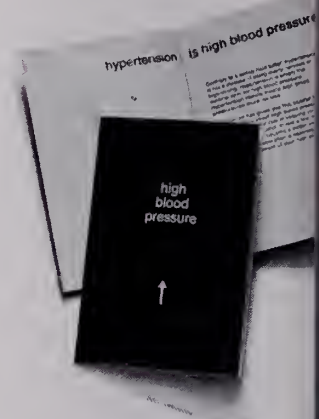
Weight gain and edema occur infrequently and are relieved by administering a thiazide diuretic; if edema progresses or signs of pulmonary congestion appear, discontinue drug. A rise in BUN has been observed. Other rare reactions include breast enlargement, lactation, impotence, decreased libido, skin rash, mild arthralgia, myalgia, paresthesias, Bell's palsy, parkinsonism, psychic disturbances including nightmares, reversible mild psychoses or depression. Urine exposed to air after voiding may darken because of breakdown of methyldopa or its metabolites.

Note: Dosage should be limited initially to 500 mg daily when following previous antihypertensive agents other than thiazides. Maximal recommended daily dose is 3.0 g. Patients with impaired renal function may respond to smaller doses than patients with normal kidney function. Syncope in older patients has been related to increased sensitivity in those with advanced arteriosclerotic vascular disease; this may be avoided by lower doses. Tolerance occasionally seen either early or late, but more likely between second and third month after initiation of therapy; increased dosage or combined therapy with a thiazide frequently restores effective control.

How Supplied: Tablets, containing 250 mg methyldopa each, in single-unit packages of 100 and bottles of 100 and 1000; Tablets, containing 500 mg methyldopa each, in single-unit packages of 100 and bottles of 100.

For more detailed information, consult your MSD representative or see full prescribing information. Merck Sharp & Dohme, Division of Merck & Co., INC., West Point, Pa. 19486

“Required Reading” For Your Hypertensive Patients



Because of the importance of patient motivation, Merck Sharp & Dohme offers "High Blood Pressure," a concise pocket-sized booklet that defines the patient's own role in the management of hypertension. This booklet is available for you to give to your patients. It is designed to reinforce your explanation of hypertension and it emphasizes the importance of patient understanding in adhering to the regimen you prescribe.

Please ask your Merck Sharp & Dohme Professional Representative or write Professional Service Department, West Point, Pa. 19486 for a supply of this booklet.

"Gentlemen, congratulations are in order."



A. H. Robins asked me
to give the banana flavor of their
Donnagel-PG with the real thing and,
I couldn't tell the difference.
I'm in sip-by-sip comparison.

There's no unpleasant
taste because there's no
artificial. Clever, wouldn't you say?
A. H. Robins uses the thera-
peutically equivalent, powdered opium,
to reduce the production of formed

stools and lessen the urge.
And Donnagel-PG also provides the
demulcent-detoxinant effects of kaolin
and pectin, plus the antispasmodic
benefits of belladonna alkaloids.

"But what I find most impressive
is the skillful manner in which
A. H. Robins has combined these
ingredients with that delicate flavor
of vintage bananas. Smashing,
absolutely smashing!"

"May I propose a toast?"

Donnagel-PG.

Donnagel with paregoric equivalent
Each 30 cc. contains:

Kaolin	60 g.
Pectin	142.8 mg.
Hyoscyaminesulfate.	0.1037 mg.
Atropinesulfate.	0.0194 mg.
Hyoscine hydrobromide.	0.0065 mg.
Powdered opium, USP.	24.0 mg.

(equivalent to paregoric 6 ml.)
(warning: may be habit forming)

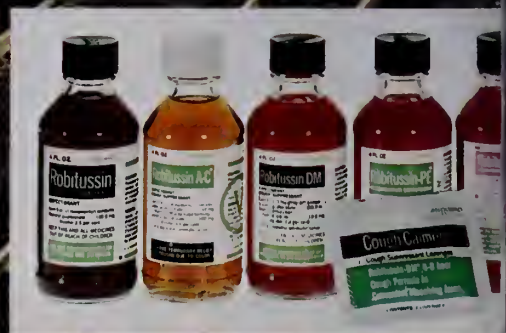
Sodium benzoate.	60.0 mg.
(preservative)	

Alcohol, 5%

Available on oral prescription or without prescription
in compliance with applicable state and local law

A-H-ROBINS

A. H. Robins Company, Richmond, Virginia 23220



COUGHS COLDS, AND U.R.I. CLEAR THE TRACT WITH THE BITUSSIN[®] IE

Fall and winter coughs are back. Time to help clear the lower respiratory tract with the five Robitussins and Cough Calmers. All contain glyceryl guaiacolate, the efficient expectorant that works systemically to help increase the output of lower respiratory tract fluid. The enhanced flow of less viscid secretions soothes the tracheo-bronchial mucosa, promotes ciliary action, and makes thick, inspissated mucus less viscid and easier to raise. Available on your prescription or recommendation.

For unproductive coughs

ROBITUSSIN[®]

Each 5 cc. contains:

Glyceryl guaiacolate 100 mg.
Alcohol, 3.5%

For severe coughs

ROBITUSSIN A-C[®]

Each 5 cc. contains:

Glyceryl guaiacolate 100 mg.
Codeine phosphate 10.0 mg.
(warning: may be habit forming)
Alcohol, 3.5%

Non-narcotic for 6-8 hr. cough control

ROBITUSSIN-DM[®]

Each 5 cc. contains:

Glyceryl guaiacolate 100 mg.
Dextromethorphan hydrobromide 15 mg.
Alcohol, 1.4%

Robitussin-DM in solid form for "coughs on the go"

COUGH CALMERS[®]

Each Cough Calmer contains:

Glyceryl guaiacolate 50 mg.
Dextromethorphan hydrobromide 7.5 mg.

Clears nasal and sinus passages as it relieves coughs

ROBITUSSIN-PE[®]

Each 5 cc. contains:

Glyceryl guaiacolate 100 mg.
Phenylephrine hydrochloride 10 mg.
Alcohol, 1.4%

MEET THE NEWEST MEMBER OF THE LINE

Comprehensive decongestant action helps control cough and clear stuffy nose and sinuses. Non-narcotic.

ROBITUSSIN[®]-CF

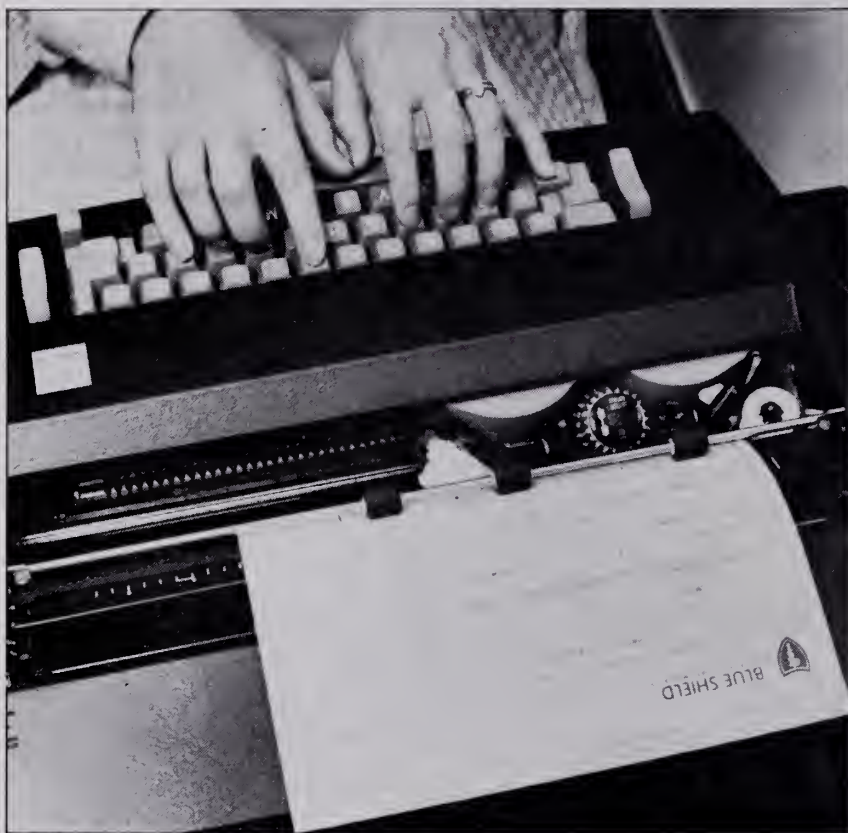
Each 5 cc. contains:

Glyceryl guaiacolate 50 mg.
Dextromethorphan hydrobromide 10.0 mg.
Phenylpropanolamine hydrochloride 12.5 mg.
Alcohol, 1.4%

Select the Robitussin[®] formulation that treats your patient's individual coughing needs:

	Expectorant- Demulcent	Cough Suppressant	Long-Acting (6-8 hours)	Nasal, Sinus Decongestant	Non- Narcotic
ROBITUSSIN [®]					
ROBITUSSIN A-C [®]					
ROBITUSSIN-DM [®]					
ROBITUSSIN-PE [®]					
ROBITUSSIN [®] -CF					
COUGH CALMERS [®]					

Help us help you with claims processing.



We need your help to make claims processing as simple as possible for everyone concerned. Blue Shield claims may be returned to your office for "clerical" errors, e.g., incorrect certificate number; the omission of the patient's age or date of service omitted.


Please remind your nurse or medical secretary to provide complete and accurate information on claim forms. File claims promptly. This will help us provide better service to you and our Blue Shield members.

If you need assistance or have questions, contact our Professional Relations Division, 3101 Bardstown Road, Louisville, Kentucky 40205, (502) 452-1511.

**Blue Cross
Blue Shield**
of Kentucky



The Rx that says "Relax"



BUTISOL Sodium provides highly predictable sedative effect: minor dosage adjustments are usually all that's needed to produce the desired degree of sedation. (With 3 dosage forms and 4 strengths to make adjustments easy.)

BUTISOL Sodium offers prompt, smooth, relatively non-cumulative action: begins to work within 30 minutes... yet, because of its intermediate rate of metabolism, generally has neither a "roller-coaster" nor a "hangover" effect.

BUTISOL Sodium is remarkably well tolerated: a 30-year safety record assures you that there is little likelihood of unexpected reactions.

BUTISOL Sodium saves your patients money: costs less than half as much as most commonly prescribed sedative tranquilizers.*

These are four good reasons for prescribing BUTISOL Sodium for the many patients who need to have the pace set just a little slower. Its gentle daytime sedative action is often all that's needed to help the usually well-adjusted patient cope with temporary stress.

*Based on surveys of average daily prescription costs.

Butisol  **SODIUM**
(SODIUM BUTABARBITAL)

Contraindications: Sensitivity or idiosyncrasy to barbiturates; history of manifest or latent porphyria or marked liver impairment; respiratory disease with dyspnea or obstruction; history of addiction to sedative/hypnotic drugs; uncontrolled pain, to avoid because of possible excitement.

Precautions: Exercise caution in: moderate to severe hepatic disease; anticoagulant therapy, because of possible increased metabolism of coumarin anticoagulants; withdrawal in drug dependence or the taking of excessive doses over a long period, to avoid withdrawal symptoms; elderly or debilitated patients, to avoid possible marked excitement or depression; use with alcohol or other CNS depressants, because of combined effects.

Adverse Reactions: Slight hangover, drowsiness, lethargy, headache, skin eruptions, nausea and vomiting, hypersensitivity reactions (especially in those with asthma, urticaria, angioneurotic edema, or similar conditions).

Usual Adult Dosage: For daytime sedation, 15 mg. to 30 mg. t.i.d. or q.i.d. For hypnosis, 50 mg. to 100 mg.

Available as: Tablets, 15 mg., 30 mg., 50 mg., 100 mg.; Elixir, 30 mg. per 5 cc. (alcohol 7%). BUTICAPS® [Capsules BUTISOL SODIUM (sodium butabarbital)] 15 mg., 30 mg., 50 mg., 100 mg.

McNEIL

McNeil Laboratories, Inc., Fort Washington, Pa. 19034

© McN 1971



Lilly

Additional information available to the profession on request.
Eli Lilly and Company • Indianapolis, Indiana 46206

400760

The JOURNAL of the Kentucky Medical Association

ISSUED MONTHLY UNDER THE DIRECTION OF THE BOARD OF TRUSTEES

VOLUME 72

NOVEMBER 1974

No. 11

Survival After Operation For Abdominal Aortic Aneurysms†

LINDA HAYS MOSELY, M.D., HIRAM C. POLK, JR., M.D., AND PHILIP J. HARBRECHT, M.D.

Louisville, Kentucky

Mortality risk in elective abdominal aortic aneurysmectomy is low. The high operative mortality of ruptured aneurysms may be best avoided by early elective resections.

WITH the advent of formal requirements and systems for evaluation of patient care, some interesting and perhaps beneficial side effects are accruing. An audit of hospital records is often an educational experience. A review of 25 consecutive patients who underwent abdominal aortic aneurysmectomy at the Veterans Administration Hospital, Louisville, Kentucky, spans the interval from April 1966 to July 1973, and includes 19 elective aneurysm resections and six emergency aneurysm resections. All patients were male, 24 were Caucasians, and their ages ranged from 43 to 81 years.

The hospital mortality rate (defined as including the first postoperative month) for elective cases was 10% (2/19). Two deaths occurred in the one-to-six month period after operation. Three additional deaths were attributable to other causes during the five-year follow-up period. All six patients who were operated on for expanding or ruptured aneurysm died on the operating table or in the early postoperative period. These results will be ex-

panded and clarified and compared to other reports.

Definitions and Basic Considerations

Some basic definitions and considerations concerning abdominal aortic aneurysms and their diagnosis are in order. In most instances these will be non-controversial.

1. An aneurysm is a localized dilatation of an artery.

2. A true aneurysm is one in which all layers of the artery are involved.

3. A false aneurysm (pulsating hematoma) is one which results from a major or total rupture of the wall of the artery, so that the wall of the aneurysm consists of a single arterial coat, such as the adventitia, or of fibrous tissue surrounding the vessel.

4. A ruptured abdominal aneurysm presumes a tear in the wall with blood extravasated beyond the adventitia of the aorta. Rupture usually occurs into the retroperitoneal space and may vary from a few cubic centimeters to massive extravasation. There may be free intraperitoneal blood associated with the retroperitoneal extravasation or occasionally the primary rupture may be into the peritoneal cavity. Rupture may also rarely occur into the adjacent organs. The prognosis naturally varies greatly from the intraperitoneal rupture, which often results in rapid death, to the controlled retroperitoneal extravasation, where there is usually time available for instituting definitive treatment.

† From the Department of Surgery, University of Louisville School of Medicine and the Surgical Service, Veterans Administration Hospital, Louisville.

5. An aneurysm which ruptures into the retroperitoneal area may present as a recently expanded or expanding mass. In a more restricted sense, however, and often difficult to distinguish from a tamponaded rupture, an **expanding abdominal aneurysm** is considered to be one which has developed recent rapid enlargement and exacerbated symptomatology but which on exploration reveals no blood beyond the adventitia. Although it usually results in an emergency operation and the mortality is greater than in elective resections, the expanding aneurysm does not carry the extremely high mortality risk of most ruptures.

6. 93% of abdominal aortic aneurysms are caused by arteriosclerosis.

7. 90% are infrarenal.

8. Such aneurysms were found in 1.7% of 10,392 consecutive autopsies.

9. Abdominal pain and/or abdominal mass are the most common initial complaints. Abdominal throbbing, backache, gastrointestinal symptoms, shock, and leg pain, or no symptoms at all are some other common manifestations of abdominal aortic aneurysm. Rupture may at times be the cause of the first symptom of an aneurysm.

10. By far, the most common sign on physical examination is an expansile, pulsating abdominal mass. A thrill or bruit may also be elicited.

11. For radiologic evaluation a lateral view of the abdomen is best for demonstrating calcification and apparent size. Arteriograms may be needed if there is a question of the diagnosis, a question of crucial location of the aneurysm, or if the distal vasculature needs assessment. A left transaxillary approach to the aorta is perhaps the safest method for obtaining aortography.

12. Rupture is the most common complication. Thrombotic occlusion, distal embolization, and infection are occasional complications. Aortoduodenal fistula or fistula to other adjacent structures is rare.

An important contribution on abdominal aortic aneurysms was that of Estes in 1950, who provided a reasonable idea of prognosis in patients with an abdominal aortic aneurysm not undergoing operation.¹ Only 19% of the patients with abdominal aneurysms who were followed for five years survived, and 63% of

the deaths from known causes resulted from aneurysmal rupture. With the advent of effective operative treatment of aneurysms, a clear-cut relationship between aneurysmal size and the likelihood of rupture became important in determining indications for operation. The approximate dividing line between dangerous and less dangerous aneurysms with respect to likelihood of rupture is 6 cm diameter. With refined methods of aneurysm excision and replacement, aneurysms of less than 6 cm diameter can be removed with a mortality rate that is acceptable relative to likelihood of rupture.

Crisler and Bahnson² summarized differing clinical aspects of large and small abdominal aortic aneurysms (Table 1).

Local Experience

From a technical standpoint, the approach generally employed at the Louisville Veterans Administration Hospital is partial excision of the aneurysm with the posterior wall left in situ followed by dacron bypass graft. The policy has been to advise operation for almost all aneurysms. The patient with a small asymptomatic aneurysm and very serious systemic disease may be the only exception. Considering the anticipated 100% mortality of non-operative treatment, there are no contraindications to emergency operation for ruptured aneurysms, and even moribund patients have had operation with concomitant vigorous resuscitative measures.

Results

- I. Elective aneurysm resections: total of 19 cases. Average age of patients was 66 years. Average size of aneurysm was 6 cm.
 - A. Twelve patients are alive and well at present.
 - B. Those who have died are divided into four categories.
 1. **Immediate postoperative deaths** (0-48 hours after operation). A 56-year-old man who underwent partial excision of abdominal infrarenal aneurysm with bypass graft died within 36 hours of operation from myocardial infarction related to hypotension precipitated by a moderate leak from the aortic suture line.

TABLE 1

DIFFERING CLINICAL ASPECTS OF LARGE AND SMALL
ABDOMINAL AORTIC ANEURYSMS²

	Large Aneurysms > 6-7 cm.	Small Aneurysms < 6 cm.
Risk of rupture during 10 years	45-50%	15-20%
Operative mortality	10%	3%
5-year survival with resection and graft	50%	65-70%
5-year survival without resection	—	50%

2. **Hospital deaths** for elective aneurysm resection within one month from the time of definitive therapy. A 74-year-old man died of complications of a subdural hematoma in the postoperative period. He had undergone a resection of an infrarenal aneurysm of the aorta with a dacron graft. On the thirteenth day after operation he had a syncopal episode and fell with resultant head injury. He required burr holes on two occasions for evacuation of subdural hematomas. Postmortem examination showed gram-negative meningitis.
3. **Delayed death** (within the first six months after operation). A 59-year-old man with aplastic anemia underwent resection of infrarenal aneurysm. He subsequently died of staphylococcal septicemia. An 81-year-old man underwent resection of a large aortic aneurysm with bifurcation graft and died in a nursing home nine weeks later.
4. **Late deaths in the follow-up period.** Two patients died more than two years postoperatively, both of cardiac complications of arteriosclerosis. A third patient died in pulmonary edema following inferior wall myocardial infarction four years postoperatively.

II. Emergency aneurysm resections.

A. **Expanding aneurysms.**

One patient who was operated on as an emergency did not have a ruptured aneurysm on exploration though it had suddenly enlarged appreciably with exacerbation of symptoms. This 70-year-old man underwent resection of

the large aortic aneurysm with dacron graft. He died in renal failure of a cardiac arrest 24 hours later. Post-mortem examination showed coronary occlusion and 1500 ml blood in the retroperitoneal area. The suture line was apparently intact.

B. **Ruptured aneurysms.**

The five patients operated on for ruptured aneurysm had an average age of 65 years. No patient was refused operation because of the seriousness of his condition. Several were moribund at exploration and all were hypotensive.

Discussion

This series is too small to make any significant statistical observations. However, the experience with elective aneurysmectomy parallels most recent reports in the literature. Two hospital deaths of 19 elective resections must be considered a reasonable ratio and, indeed, the death resulting from subdural hematoma was related more to the general debility of the patient than to the operation itself.

The lack of salvage in the six emergency operations merits some discussion. The question of technical skill arises and it might be that a patient or two could have been saved by improved operating techniques. Of some significance was delay in diagnosis both before arrival and occasionally inside the hospital. Once a diagnosis was made the approach was vigorous and prompt, but all six emergency operations were started with the patient hypotensive; several were moribund. During the period studied, no patient with rupture was not operated on because of the seriousness of his condition. Pre-operative hypotension did provide a clue to the eventual result. Couch and associates,³ for example, quote a mortality rate of 85% for ruptured aneurysms when shock was present pre-operatively compared to 43% when shock was not present.

The salvage rate in ruptured aneurysms undoubtedly varies considerably with the technical competence of the surgeon and the operating team. Of perhaps equal significance is the vigor and skill with which concomitant resuscitative measures are undertaken. Perhaps most significant is the condition of the rupture and of the patient. Rupture into the free peritoneal

TABLE 2

RECENT MORTALITY IN AORTIC ANEURYSM RESECTION

Years	Author	Elective		Expanding		Ruptured	
		No. Patients	% Mortality	No. Patients	% Mortality	No. Patients	% Mortality
1961-1969	Darling ⁸	155	2.6	35	20	60	40
1956-1969	Van Heeckeren ⁷	53	13	45	22	57	60
1963-1968	Couch, Lane, Crane ³	48	14.5	7	14.3	15	60
1962-1968	Williams, Fisher, Dickey ⁵	55	11	—	—	32	65
1968-1971	Williams, Fisher, Dickey ⁵	67	7.4	—	—	47	34
1965-1971	Stokes and Butcher ⁴	87	3.4	—	—	13	15

cavity or massive retroperitoneal extravasation carry grave prognoses in any hands. The patient may have other severe arteriosclerotic complications or other serious systemic disease. By contrast, the patient with reasonable cardiac competency and a relatively small tamponaded rupture should have a relatively good prognosis with appropriate, prompt, and vigorous treatment.

Some statistics on mortality rates from other institutions are of interest and summarized in Table 2 which has been revised and adapted from a rather similar listing by Stokes and Butcher.⁴ These figures may not be strictly comparable because some represent public institutions and others private referral practice, or they may be combinations of both. In addition, each series was not equally analyzed regarding the presence of shock, free rupture, massive extravasation, and the like as opposed to tamponaded and compensated rupture. Indeed Williams and colleagues⁵ as well as Stokes and Butcher⁴ largely ignore the concept of the expanding aneurysm. Presumably an emergency operation falls under the classification of ruptured and other operations are elective, but the papers do not so specify, nor is there any indication of the number of this intermediate group in their series.

The University of Toronto group⁶ reporting mortality rates in elective and ruptured aortic aneurysmorrhaphy believe there has been an improvement in mortality rate associated with elective procedures if studied by time intervals (1955-1971) (Table 3). They noticed very little improvement in their mortality rates for ruptured aortic abdominal aneurysm, which

was approximately 67% across the board (Table 4). Generally, over-all mortality rates for ruptured aneurysm are still significantly high. Van Heeckeren⁷ reviewed the literature on ruptured abdominal aortic aneurysm and found a 54% hospital mortality in 740 operations since 1963. The range in the seventeen series reported was from 32% to 82%.

Summary and Conclusions

The present series includes 25 consecutive patients in whom abdominal aortic aneurysmectomy was performed. The 19 elective cases had a hospital mortality rate of slightly over 10%, only one of the two deaths being directly related to the operation. The five-year survival rate after elective operation was 63%. There were six cases of emergency abdominal aneurysmectomy with a mortality rate of 100%. Delay in diagnosis, both extra- and intrahospital, contributed in some cases to patient deterioration. All patients with ruptures were hypotensive and several were moribund preoperatively.

TABLE 3
RISK OF ELECTIVE REPAIR OF AN ABDOMINAL AORTIC ANEURYSM
1955 TO 1971⁶

	No. Patients	No. who died in hospital	Mortality rate (%)	Inter-hospital range (%)
First ten years	267	30	11.2	8-12
Second five years	285	28	9.8	5-15
Last two years	162	11	6.7	3.6-11.5
Over-all	714	69	9.7	7.4-14.6

TABLE 4

MORTALITY ASSOCIATED WITH REPAIR OF A RUPTURED
AORTIC ANEURYSM
1955 TO 1971^a

	No. Patients	No. who died in hospital	Mortality rate (%)	Inter- hospital range (%)
First ten years	128	86	67.2	51-78
Second five years	124	80	64.5	55-81
Last two years	47	32	68.1	44-85
Over-all	299	198	66.2	64-70

The acceptable mortality rate for the 19 elective cases encourages us to continue to try to diagnose and treat the abdominal aortic aneurysm at an early, elective stage. This should represent the best prophylaxis against the catastrophe of rupture. Presented with the ruptured aneurysm, an informed, prompt, and aggressive approach ought to yield occasional salvages, the percentage varying with the type and stage of rupture encountered and the general condition of the patient.

References

1. Estes, J.E., Jr.: Abdominal aortic aneurysm; study of one hundred and two cases. *Circulation* 2:258, 1950.
2. Crisler, C., and Bahnson, H.T.: Aneurysms of the aorta. *Current Problems in Surgery*. Chicago: Year Book Medical Publishers, Inc., December, 1972.
3. Couch, N.P., Lane, F.G., and Crane, C.: Management and mortality of abdominal aortic aneurysm. *Amer. J. Surg.* 119:408, 1970.
4. Stokes, J., and Butcher, H.R., Jr.: Abdominal aortic aneurysms: Factors influencing operative mortality and criteria of operability. *Arch. Surg.* 107:297, 1973.
5. Williams, R.D., Fisher, F.W., and Dickey, J.W.: Problems in the diagnosis and treatment of abdominal aortic aneurysms. *Amer. J. Surg.* 123:698, 1972.
6. Inter-Hospital Cardiovascular Surgery Group of the University of Toronto, et al.: Surgical treatment of abdominal aortic aneurysms in Toronto: Study of 1013 patients. *Can. M.A.J.* 107:1091, 1972.
7. Van Heeckeren, D.W.: Ruptured abdominal aortic aneurysms. *Amer. J. Surg.* 119:402, 1970.
8. Darling, R.C.: Ruptured arteriosclerotic abdominal aneurysms: A pathologic and clinical study. *Amer. J. Surg.* 119:397, 1970.

Manuscript Memos

Manuscripts should be submitted in duplicate to *The Journal of KMA*, an original copy and one carbon, and typed with double spacing. Maximum length of an article should not exceed 4500 words; the Board of Consultants on Scientific Articles prefers that they be briefer than this when possible.

In submitting a manuscript, the author is requested to include a concise summary, not to exceed 35 words, to be used as a sub-title when the article is published in *The Journal*. The purpose of the summary is to create additional interest and encourage greater readership.

Footnotes and bibliographies should conform to the style of the *Quarterly Cumulative Index Medicus* published by the American Medical Association. This requires in the order given name of author, title of article, name of periodical, with volume, page, month—day of month if weekly—and year. The *Journal of the KMA* does not assume responsibility for the accuracy of references used with scientific articles.

All scientific material appearing in *The Journal* is reviewed by the Board of Consultants on Scientific Articles. The editors may use up to six illustrations with the essayist bearing the cost of all over three one-column halftones.

Arrangements for reprints of an article should be made directly with the publisher of *The Journal*, Gibbs-Inman Printing Company, 817 W. Market St., Louisville, Ky.

The bylaws of the Kentucky Medical Association provide that all scientific discussions and papers read before the KMA Annual Meeting shall be referred to the KMA Journal for consideration for publication. The bylaws further state that the editor or the associate editor may accept or reject these papers as it appears advisable and return them to the author if not considered suitable for publication.

Please mail your scientific articles to *The Journal of the Kentucky Medical Association*, 3532 Ephraim McDowell Drive, Louisville, Kentucky 40205.

Wegener's Granulomatosis

HAROLD J. SCHUPBACH, M.D.

Owensboro, Kentucky

Wegener's granulomatosis is an uncommon disease of obscure origin and until the advent of immunosuppressive therapy, the prognosis was dismal. Despite its rarity, the ailment is easily recognized by its characteristic features and clinical course.

KLINGER¹ described an instance of illness beginning in the upper respiratory structures followed by the development of nephritis and general sepsis. He considered the case to be a variation of periarteritis nodosa but called attention to such unusual features as involvement of the lungs, upper respiratory tract, spleen and the occurrence of granuloma formation and vasculitis. Wegener² reported three examples of a generalized septic vascular illness which he later termed a "rhinogenic granulomata with peculiar involvement of the arterial system and kidney".³ All showed a remarkably consistent course characterized by sepsis, destructive ulceration and inflammation in the upper respiratory tract and internal organs, a widespread arteritis and "granulomatous glomerulonephritis".

A number of similar cases were reported over the next decade. Despite confusing terminology, the anatomical descriptions and the clinical manifestations were such as to consolidate the concept of the disorder as an entity distinct from periarteritis nodosa. Fienberg⁴ reported two cases and examined critically a number of case reports cited variously as examples of periarteritis nodosa, granuloma, and giant cell granuloma with periarteritis, and from these, he concluded that they all represented the entity that has become best known as Wegener's granulomatosis. Fienberg had hoped to clarify terminology by offering the descriptive name "necrotizing granulomatosis and angiitis" but the eponym has increasingly become the favored designation. Wegener's recognition of the difference between the tissue reaction of periarteritis nodosa and the disease that now bears his name was emphasized by

Fienberg. He also went on to cite other similarities and differences between the two conditions. Both of his cases exhibited massive necrotizing granulomata of the lungs, massive splenic necrosis and focal thrombotic glomerulonephritis. Arterial changes similar to those of periarteritis were seen in arteries in the gastrointestinal tract in one case but otherwise were not a prominent anatomical finding elsewhere. In contrast to periarteritis nodosa, his cases showed the striking predominance of extravascular lesions and the intimate association of destructive and inflammatory changes in the lungs with granulomatous formation. A close relationship between the angiitis and granulomatous changes was present. For example, he noted that blood vessel walls in contact with the granulomatous tissue were involved in the inflammatory reaction while the opposite wall of the blood vessel in contact with normal tissue was spared. Marked involvement of both arteries and veins was present. He suggested the tissue changes could be interpreted to represent a hypersensitivity phenomenon most like the Arthus's reaction.

The pathologic features were further consolidated and characterized by Godman and Churg⁵ who summarized them as follows:

"Anatomically, these cases which were studied and regarded as typical of Wegener's granulomatosis were invariably characterized by concurrence of three pathological features:

1. Necrotizing granulomatous lesions in the upper air passages (nose, paranasal sinuses, nasopharynx, glottis or adjacent regions) or in the lower respiratory tract (trachea, bronchi, lungs) or in both.

2. Generalized focal necrotizing vasculitis, involving both arteries and veins, almost always in the lungs and more or less widely disseminated in other sites.

3. Glomerulitis, characterized by necrosis (and thrombosis) of loops or lobes of the capillary tuft, capsular adhesion, and evolution as a granulomatous lesion.

Together these features are the identifying morbid characteristics, no one or two of which

in the absence of the others, serve to denominate the syndrome anatomically.”

Although this triad served as a diagnostic framework for the syndrome, it has become apparent that many cases failed to satisfy all three features. Confusion arose because of the frequent occurrence of localized forms of the disease, i.e. nasopharynx or lung, and additional perplexity occurred as the result of similar but probably different entities that showed some of the features of Wegener's granuloma, such as allergic granulomatosis described by Churg and Strauss⁶ and malignant granuloma.⁷ This problem was reviewed at length by DeOreo⁸, who concluded that “the recognition that there are *focal* and *disseminate* forms would do much to clarify nomenclature.” This concept has been amply justified with the passage of time. Carrington and Liebow⁹ described a localized pulmonary Wegener's granulomatosis. Patchefsky and Israel¹⁰ offer eighteen cases notable for the absence of renal pathology and generalized vasculitis with all cases showing nodular pulmonary involvement, varying widely in degree of severity of illness from relatively indolent to fulminating and rapidly fatal pulmonary ailments. Upper respiratory involvement was also present in five, skin involvement in two, pituitary granulomata and hematologic manifestations were each seen in one patient.

Liebow¹¹ has brought still greater definition to the problem of classification of diseases characterized by granulomatosis with angiitis. From histologic studies and to an extent natural history, he recognizes five separate entities including (1) classical Wegener's granulomatosis of the disseminated variety, (2) limited angiitis and granulomatosis of the Wegener's type, (3) lymphomatoid granulomatosis, (4) necrotizing “sarcoid” angiitis and granulomatosis, and (5) bronchocentric granulomatosis. Lymphomatoid granulomatosis resembles closely limited Wegener's granulomatosis, is characterized by active lymphoreticular proliferation and in at least 15% of patients takes on the characteristics of a polymorphous lymphoma. Necrotizing sarcoid granulomatosis and bronchocentric granulomatosis are newly-described syndromes. In the first instance, the disorder displays histologic changes that seem to combine the features of sarcoidosis as well

as necrotizing angiitis while the latter, as the name implies, primarily involves the bronchi and bronchioles with damage to the lung parenchyma a secondary event.

The cause of Wegener's granulomatosis remains obscure and uncertain. The absence of a specific infectious agent was stressed by Fienberg,⁴ Godman and Churg⁵ and in Walton's study¹².

Fienberg⁴ suggested a hypersensitivity reaction of the Arthus type. Godman and Churg⁵ pointed out that each of the characteristic lesions of Wegener's granuloma have been clearly associated with hypersensitivity states. They attribute the predominant concentration of the manifestations of the illness within the respiratory tract to noxious agents, probably microbial, which are concentrated in or acting chiefly upon the respiratory tract and/or because the respiratory tissues are the most highly sensitized and thus form the most susceptible shock tissues. Walton¹² arrived at similar conclusions. He considered the ulceration of the respiratory tract the primary lesion and while intrigued by the immunological reaction as a cause, concluded that the etiology of the primary lesion was yet uncertain. He suggested it probable that the secondary lesion, that is the widespread involvement of the lungs, kidney, spleen, skin, etc., was the result of a hypersensitivity reaction with a drug or with tissue breakdown products possibly being antigens. Despite many subsequent similar speculations, the pathogenesis of Wegener's granulomatosis remains obscure. Hypersensitivity continues to be the favored response but to what and how it is mediated remains to be answered. The clinical manifestations in the fulminant case of classical Wegener's granulomatosis are easily recognized and the diagnosis seldom remains long in doubt¹²⁻¹⁴. The destructive, ulcerative process in the nasopharynx, its extension to adjacent structures coupled with the involvement of the pharynx, trachea and lungs with wheezing, cough, fever, mucopurulent sanguineous expectoration and pulmonary infiltrates, the progression to renal involvement with accompanying hematuria, proteinuria and evidences of failing renal function is a pattern lending itself to easy recognition. Biopsy confirmation from the upper or lower respiratory tract or skin usually provides tissue diagnosis. Needle

biopsy of the kidney may be helpful but seldom serves to separate the various disorders similar to Wegener's granulomatosis such as periarteritis nodosa, hypersensitivity angiitis, and allergic granulomatosis. The lack of sufficient biopsy material in the case of lung biopsy is also a cause of reluctance to diagnose Wegener's granulomatosis from material obtained in this way.¹⁰

The variants of the disease referred to above and the other syndromes mimicking the disorder may also create some difficulty in diagnosis. This is particularly true in the more indolent varieties of the disorder. Awareness of the limited involvement and appreciation of the pathological findings when adequate tissue samples are available should lead to the correct diagnosis.

The treatment of Wegener's granuloma is a remarkable chapter in therapeutics. All of the early reports emphasized the bleak prognosis and universally fatal outcome usually in a period of five months¹². From a halting beginning with the corticosteroids, the last decade has seen the treatment of this previously fatal disorder now result in long term survival, remission and possibly even recovery¹⁴.

The corticosteroids and ACTH were the first agents capable of some amelioration. Their effects, while at times dramatic and sometimes capable of prolonging survival, did not give evidence of control of the process nor were they consistently effective. A review of the reported experience with corticosteroids showed a prolongation of survival to 12½ months¹⁵, though in advanced stages of the disease, maximal dosage often failed to produce a remission. During this same period, various authors recommended therapeutic radiation for control of local areas of involvement such as the sinuses, nasopharynx and even pulmonary lesions^{13,16,17}.

The first successful use of an alkalating agent in the disseminated Wegener's granulomatosis was reported by Hollander and Manning¹⁵ though the use of nitrogen mustard was reported as early as 1954¹³. A patient in Fahey's series who had also received triethylenemelamine was given nitrogen mustard with relief of symptoms for a period of about 10 days. Other case reports then followed. The use of cytotoxic drugs has been extensively reviewed by Fround

and Henderson¹⁸ and data from 18 cases that fulfilled the diagnostic triad of Godman and Churg⁵ were summarized. The mean survival time in this group was 36 months as compared to Walton's⁷ figure of five months. Agents used included triethylenemelamine, nitrogen mustard, azothioprine, chlorambucil, cyclophosphamide, diazomycin A and 6 mercaptopurine. Raitt¹⁹ presented six patients with generalized Wegener's granulomatosis in whom cytotoxic agents including azothioprine, nitrogen mustard, cyclophosphamide and chlorambucil were administered along with corticosteroids with control and stabilization of the disease in five patients who were alive from 15 to 96 months of observation. One patient experienced a remission after 84 months of therapy with no recurrence of disease 12 months after the withdrawal of medications. There was no indication of any distinct advantage of one agent over another. Berglund²⁰ added five additional patients treated with the combination of chlorambucil and prednisone with control of the disease for periods ranging from eight to 48 months in three. Capizzi and Bertino²¹ have had remissions in two patients for 26 and 30 months with methotrexate given in a weekly intravenous injection. They suggest a special usefulness for methotrexate because of the rapidity with which it achieves relief of symptoms when compared to the slowness of onset of effect of the alkalating agents and azothioprine, thereby providing an advantage in the more seriously ill patient. Because methotrexate is excreted unchanged by the kidneys they wisely recommend extreme caution and adjustment of dosage in instances where advanced renal involvement exists. Heparin is another drug that has found some usefulness in a few cases^{22,23}. It is postulated that heparin may be effective due to its ability to terminate disseminated intravascular coagulation which may be responsible for many of the renal manifestations of Wegener's granulomatosis.

Since one of the terminal events in Wegener's granulomatosis is renal failure and since the primary disease itself can now be controlled with the cytotoxic drugs and prednisone, the question of the place of renal transplantation in the treatment of Wegener's granuloma becomes a valid consideration. Lyons and Lindsay²⁴ report the case of a 29-year-old man

with advanced renal failure associated with Wegener's granulomatosis. With treatment, he experienced regression of the pulmonary lesions. Renal biopsy showed changes consistent with Wegener's granulomatosis. He continued to do well on a dialysis program while continuing on prednisone and azothioprine and then underwent bilateral nephrectomy and renal transplantation. The immediate result has been successful. With effective control of the systemic manifestations of Wegener's granulomatosis, renal transplantation does appear to be a logical extension of therapy in some of the patients with end-stage renal disease.

Conclusion

Two points are worth emphasis. The first is the concept of limited forms of Wegener's granulomatosis. Whether such cases take on the fulminant and disseminated aspects of Wegener's granulomatosis remains to be seen. The second is the dramatic change in outlook as a result of the discovery of effective means of therapy. A precise understanding of the cause of this fascinating disease remains the challenge for future investigators.

References

1. Klinger, H.: Grenzformen der periarteritis nodosa. *Frankfurter Z. für Path.* 42:455-480, 1931.
2. Wegener, F.: Über generalisierte, septische Gefässerkrankungen. *Verh. Deutsch. Ges. Path.* 29:202-210, 1936.
3. Wegener, F.: Über eine eigenartige rhingene Granulomatose mit besonderer Beteiligung des Arterien-systems und der Nieren. *Beitr. Path. Anat.* 102:36-68, 1939.
4. Fienberg, R.: Necrotizing granulomatosis and angiitis of the lungs. *Am. J. Clin. Path.* 23:413-428, 1953.
5. Godman, G.C., and Churg, J.: Wegener's granulomatosis. *Arch. Intern. Med.* 58:533-553, 1954.
6. Churg, J., and Strauss, L.: Allergic granulomatosis, allergic angiitis, and periarteritis nodosa. *Am. J. Path.* 27:277-301.
7. Walton, E.W.: Non-healing granulomata of the nose. *J. Laryngol. Otol.* 73:242-260, 1959.
8. De Oreo, G.A.: Wegener's granulomatosis. *Arch. Dermatol.* 81:169-174, 1960.
9. Carrington, C.B., and Liebow, A.A.: Limited forms of angiitis and granulomatosis of Wegener's type. *Am. J. Med.* 41: 497-527, 1966.
10. Patchefsky, A.S., and Israel, H.L.: Pulmonary Wegener's granulomatosis. *Ann. Clin. Lab. Sc.* 3:249-58 1973.
11. Liebow, A.A.: The J. Burns Amberson Lecture—Pulmonary angiitis and granulomatosis. *Ann. Clin. Lab. Sc.* 3:249-58, 1973.
12. Walton, E.W.: Giant-cell granuloma of the respiratory tract (Wegener's granulomatosis). *Br. Med. J.* 2:265-270, 1958.
13. Fahey, J.L., Leonard, E., Churg, J., and Godman, G.: Wegener's granulomatosis. *Am. J. Med.* 17:168-179, 1954.
14. Editorial: Wegener's granulomatosis. *Lancet* 2:519-21, 1972.
15. Hollander, D., and Manning, R.T.: The use of alkalating agents in the treatment of Wegener's granulomatosis. *Ann. Intern. Med.* 67:393-398, 1967.
16. Hultberg, S., Koch, H., Moberger, G., and Mortenson, G.: Malignant granuloma. *Acta. Radiol.* 47:229-248, 1957.
17. Wildermuth, O.: Lethal midline granuloma. *Radiology* 78:269-271.
18. Fround, P.J., and Henderson, A.H.: The treatment of Wegener's granulomatosis with immunosuppressive-cytotoxic drugs. *J. Laryngol. Otol.* 85:703-710, 1971.
19. Raitt, J.W.: Wegener's granulomatosis: Treatment with cytotoxic agents and adrenocorticoids. *Ann. Intern. Med.* 74:344-356, 1971.
20. Berglund, G., Hansson, L., Persson, B., and Vik-grew, P.: Combined chlorambucil and prednisolone treatment of five patients with Wegener's granulomatosis. *Acta Med. Scand.* 191:5-9, 1972.
21. Capizzi, R.L., and Bertino, J.R.: Methotrexate therapy of Wegener's granulomatosis. *Ann. Intern. Med.* 74:74-79, 1971.
22. Fuller, T., Olsen, N., Bloch, A., and Cade, J.: Wegener's granulomatosis treatment with heparin in addition to azothioprine and corticosteroids. *Nephron.* 9: 225-234, 1972.
23. Whitaker, A.N., Emmerson, B.T., Bunce, I.H., Nicoll, P., and Sands, J.M.: Reversal of renal failure in Wegener's granulomatosis by heparin. *Am. J. Med. Sci.* 265: 399-406, 1973.
24. Lyons, G.W., and Lindsay, W.G.: Renal transplantation in a patient with Wegener's granulomatosis. *Am. J. Surg.* 124:104-107, 1972.

Notice To Contributors

Members of the Kentucky Medical Association reading papers before other organizations are asked to submit their papers to *The Journal* for consideration by the Editors for publication. Detailed instructions to contributors appear in the Scientific Section of *The Journal* under Manuscript Memos. Please forward any papers to:

Paul C. Grider, Jr., M.D., Scientific Editor
The Journal of the Kentucky Medical Association
3532 Ephraim McDowell Drive
Louisville, Kentucky 40205

Specific Indications For Parenteral Iron Therapy— Experience With One Hundred Patients Using Intravenous Iron Dextran†

WILK O. WEST, M.D.

Lexington, Kentucky

One hundred patients with iron depletion were treated over a 100 month period with intravenous iron dextran by drip infusion. Intravenous iron therapy has distinct advantages over intramuscular iron therapy and should be utilized if parenteral iron is indicated.

Introduction

TO repeat two old axioms: 1. Most patients with iron depletion may be treated effectively and economically with any of the many available oral iron preparations. 2. The rapidity and level of hemoglobin response is little different when one utilizes either oral or parenteral iron.

On occasion a patient will present with a specific indication for parenteral iron therapy. That is what this article is all about.

Iron dextran complex has been used as an intramuscular iron preparation since 1954. Since 1960¹, numerous reports have cited good tolerance and effect when this same preparation was used intravenously. The reader is kindly invited to review a good article on intravenous iron dextran complex therapy by Wallerstein in 1968².

Approval was given by the Food and Drug Administration in 1973 to permit physicians to give iron dextran complex intravenously in small amounts at frequent intervals.

The purpose of this report is to present results obtained from the administration of iron dextran complex by infusion to 100 iron-depleted patients over a 100 month period. The indications for parenteral iron therapy had to be met before treatment was instituted.

† This study was initiated at the Lexington Clinic, Lexington. A small grant and some of the medication used were supplied by Lakeside Laboratories.

Material and Method

From October 1965 through January 1974, 100 patients were treated with intravenous iron dextran complex. There were 30 male and 70 female patients. The diagnosis of iron deficiency was made by conventional methods including hypochromic red cells on blood smear, low serum iron and high total iron binding capacity, a saturation index of below 17%, and absent iron storage in the bone marrow. The indications for parenteral iron therapy had to be satisfied: 1) Gastrojejunostomy; 2) Gastrointestinal bleeding; 3) Oral iron intolerance; 4) Chronic ulcerative colitis; 5) Iron malabsorption; and 6) Unreliable patient. Inferon (ferric hydroxide-dextran complex of Lakeside Laboratories) was the preparation used. The total dose was calculated from manufacturer's tables. Half of this dose was given in either 500 or 1,000 cc glucose in water over a two-hour period. The other half was given by the same technique in seven days or less. The hemoglobin was performed prior to the second infusion and again at six weeks in all patients. Many patients had reticulocyte counts performed prior to the second dose, and many patients had serum iron and total iron binding capacity studies performed at six weeks. This constituted a course of therapy. A repeat course using an appropriate dose was given if necessary. A test dose was not given and no patient was premedicated, although the reader is directed to review precautions in therapy by Newcombe³. Iron dextran was given both to out-patients and in-patients. Most patients in the gastrojejunostomy and iron malabsorption categories had an iron absorption test performed prior to therapy. A fasting serum iron was drawn and immediately thereafter each patient received two tablets of ferrous fumarate with vitamin C. Two hours later another serum

iron was drawn. If absorption were intact, the second serum iron should have been normal or elevated⁴. No patient in these categories had this normal response.

Results

Gastrojejunostomy: There were 13 patients, six male and seven female, with a mean age of 56, who received 53 separate infusions during from one to nine courses. Follow-up was from one to 100 months. The average rise in hemoglobin at the end of six weeks was 3.9 gm%. The total dose over this entire period of time varied from 1,500 mg to 15,000 mg. Excellent results were obtained in eight patients, good results in four, and fair or poor in one. One patient developed hives during his first infusion. He responded well to diphenylhydramine. Hives did not recur during his second infusion. Another patient developed arthralgia of her hands the next day following her first infusion. This did not recur following three additional infusions. One patient had received intramuscular iron in the past with poor or no results. Associated problems were unusual. One patient had hyperthyroidism.

Gastrointestinal Bleeding: There were 19 patients, 10 male and nine female, with a mean age of 53, who received 43 infusions during from 0.5 to 2 courses. Follow-up was from zero to 78 months. The average rise in hemoglobin at the end of six weeks was 3.8 gm%. The total dose varied from 750 mg to 4,000 mg. Excellent results were obtained in three and good results in three patients. I was unable to evaluate the results in 13 patients because of persistent bleeding and blood transfusions were required. There were no side effects.

Associated problems were many. Eight patients had gastrointestinal malignancies; one patient had a bleeding stress ulcer following a burn. Two patients had bleeding from hiatus hernia, one patient bled from telangiectasia of the jejunum discovered at surgery, four patients had bleeding from duodenal ulcer, and one of these patients was on anticoagulant therapy. One patient had a bleeding gastric ulcer. It is easily seen why many of these patients could not be evaluated, but their tolerance to intravenous iron dextran was excellent.

Oral Iron Intolerance: There were 25 patients, two male and 23 female, with a mean

age of 41, who received 63 infusions during from 0.5 to 3 courses. Follow-up was from one to 63 months. The average hemoglobin rise was 3.1 gm% at the end of six weeks. The total dose varied from 900 mg to 5,000 mg. Excellent results were obtained in 13 patients, good results in 11, and fair to poor in one. Two patients developed flushing during the first infusion. Two patients developed arthralgia the following day. One patient developed phlebitis at the injection site and one patient developed a classic serum sickness-like reaction four days following her first infusion.

Associated problems: 15 patients had hypermenorrhea either due to functional factors or uterine fibroid disease. One patient had rheumatoid arthritis. Two patients had duodenal ulcer disease and one each postpartum bleeding, chronic bleeding hemorrhoids, traumatic blood loss, carcinoma of the cervix, carcinoma of the urinary bladder and ascorbic acid allergy.

Chronic Ulcerative Colitis: There were six patients, one male and five female, with a mean age of 36, who received a total of 13 infusions during from 1 to 1.5 courses. Follow-up was from zero to seven months. One patient each had an excellent and a good response. Four patients could not be evaluated because of continued bleeding and blood transfusion requirement. No side effects were noted in this group and there were no other associated problems.

Iron Malabsorption: There were 33 patients in this group, 11 male and 22 female. The mean age was 56. They received 107 separate infusions during from 0.5 to 12 courses. Follow-up was from zero to 42 months. The average hemoglobin rise at six weeks was 2.9 gm%. The total dose of iron dextran over this period of time varied from 750 mg to 19,000 mg. The results were excellent in 11 patients, good in four, and fair to poor in six. Twelve patients could not be evaluated, either having been lost to follow-up or requiring blood transfusions. Two patients developed phlebitis at the injection site.

There were several associated problems. Five patients had rheumatoid arthritis and the results were poor. There was no indication of a flare in the arthritis following infusions of iron dextran as has been reported by Reddy and Lewis⁵. One patient had bone marrow hypo-

plasia and one a term pregnancy. A 39-year-old woman had hereditary telangiectasia and was an iron malabsorber. She received 25 separate infusions over a 35 month period using a total dose of 19,000 mg. Her hemoglobin was kept in the range of 6 gm%. Blood transfusions were not required. A similar case has been reported⁶. Two patients had renal failure and one each hypermenorrhea and hiatus hernia.

Unreliable Patients: There were four older patients in this group, all female, with a mean age of 83, who received eight infusions. Each had one course of therapy. The total dose varied from between 1,000 and 1,500 mg. Follow-up was from 0 to 1.5 months. One patient had an excellent response, two fair to poor, and one was lost to follow-up. No side effects were seen. All patients had malnutrition.

For summary of results, see the summary table, indicating 100 patients who received 287 infusions with 37 excellent results, 23 good results, 10 fair to poor results and 30 patients could not be evaluated. Side effects were 10%.

Discussion

This discussion will take the reader through, in step-wise fashion, the many facets of intravenous iron dextran therapy.

Indications: Iron dextran has been shown by innumerable studies since 1954 to be a safe, effective, and economical agent to correct iron depletion. As I have endeavored to emphasize, physicians should direct themselves initially toward a firm diagnosis and then adhere to specific indications before any parenteral iron therapy is administered. My indications include **gastrojejunostomy, gastrointestinal bleeding, oral iron intolerance, chronic ulcerative colitis, iron malabsorption, and the unreliable patient**. Granted, there is some degree of overlapping in these categories, but individually they seem to be pertinent in the practice of clinical medicine. Each category deserves some comment.

Gastrojejunostomy: Thanks be that this particular type of surgery is performed only rarely now. Most physicians would agree that gastroduodenostomy or vagotomy and pyloroplasty are superior procedures for treatment of resistant or complicated ulcer disease. The anemia of gastrojejunostomy is usually iron deficiency, as food iron does not

come in apposition with duodenum—the site of most iron absorption. The oral iron absorption test is appropriate as a diagnostic tool. Recurrent ulcer disease and gastritis should be ruled out. Patient J. McK. received 15,000 mg of intravenous iron dextran over a 100 month period. There was no evidence of blood loss and all x-rays were negative.

Gastrointestinal Bleeding: Parenteral iron is indicated in many of these patients, particularly as this agent does not mask further bleeding as oral agents might do. Studies have shown great obviation of blood transfusions in this category—telangiectasia, Banti's syndrome, duodenal ulcer disease, and gastrointestinal malignancies.

Oral Iron Intolerance: This situation requires the use of parenteral iron and occurs most commonly in younger women iron depleted from hypermenorrhea and/or multiple pregnancies. Some of these women tolerate time-released oral iron products but the response is slow and unpredictable⁷.

Chronic Ulcerative Colitis: Parenteral iron therapy is usually indicated in the moderate-to-severe patient. Oral iron may aggravate the colitis and mask bleeding. This type of anemia is due to bleeding, malabsorption, hypermotility, and chronic inflammation.

Iron Malabsorption: About 2/3 of patients in this group were older women. The iron absorption test yielded a flat curve while other parameters of absorption including full x-rays were normal. No patient had steatorrhea. Kember and Weintraub⁸ noted in 1968 that iron deficiency was a significant factor in iron malabsorption in a group of eight children. They thought that a decrease in iron-containing or iron-dependent enzyme systems in the mucosa of iron-deficient subjects might lead to abnormalities in cellular metabolism and a secondary state of malabsorption.

Unreliable Patient: Many older patients cannot be relied on to take prescribed oral medication regularly for a given time period. If iron deficiency is significant to their general health in this category, iron should be given parenterally.

Another indication not included in this paper is autotransfusion. A great deal of this work has been performed at the University of Colorado⁹.

Administration

This drug may be given total dose undiluted or in a vehicle such as glucose in water or saline by drip infusion. The total dose should be given within seven days and no more until after the 21st day in order to avoid allergic reactions. Slade and Iosefa¹⁰ believe that the incidence of phlebitis at injection site is more common when glucose solution is used as the vehicle. They recommend saline as the vehicle or use of the undiluted preparation. Roe¹¹ recommends that the total calculated dose of iron dextran be diluted in a maximum of 250 cc saline and in his hands an increase in the volume of iron dextran had no adverse effect on the complication rate. Henderson and Hillman¹² showed that after 1500 - 2500 mg iron dextran infusion, the last 500 - 1000 mg is released at a rate which permits no better than twice normal red cell production. This is hardly an improvement over oral iron therapy. Large doses of iron dextran which create artificial iron storage may with time be unavailable for hemoglobin synthesis. Physicians might ponder this and give 500 - 750 mg twice during a seven-day period, then give another course in six weeks if necessary.

Side Effects

In many series, the incidence of side effects of intravenous iron dextran has varied widely. The rate was 10% in the present article, all minor. No incident of anaphylaxis was noted. In a world literature review on generalized untoward effects in 1968², the incidence was 1-2% in over 2,400 patients. A rare death has been reported since then. Acute iron toxicity

has not been a problem. The incidence of flushing may be decreased by slower infusion and phlebitis may be decreased by using the undiluted product or saline as a diluent. Urticaria and arthralgia are no doubt due to allergic reactions to dextran and are usually mild and treated conservatively. Patients who have a strong allergic diathesis should be treated with caution or another preparation used.

Advantages of Intravenous Over Intramuscular Iron Dextran

On the strength of this article plus numerous others since Wallerstein in 1960¹ and Basu in 1963¹³, the intravenous route would seem preferable to the intramuscular route. The advantages include: 1) virtually pain free, 2) no iron staining, 3) no iron permanently bound to muscle, 4) no fibromyositis, 5) no potential for local malignancy^{14,15}, 6) virtually no difference in major or minor reactions, 7) response more rapid and complete as most of the administered drug is utilized as opposed to decreased utilization by the intramuscular route, 8) if an untoward reaction occurs the drug may be stopped immediately and IV fluids plus medication such as antihistamine, corticosteroid, or adrenalin may be given through the open vein, 9) the entire course of treatment can be given expeditiously as herein described or by total dose infusion, diluted or undiluted, 10) insufficient muscle mass, 11) impaired absorption from the muscle due to edema or stasis, 12) the possibility of uncontrolled intramuscular bleeding as might occur in coagulopathic and thrombocytopenic states, and 13) when massive and prolonged parenteral therapy is required, such as in familial telangiectasia.

SUMMARY OF RESULTS

	NO. OF PATIENTS	MALE-FEMALE	MEAN AGE	NO. OF INFUSIONS	AVG. RISE IN HGB gm %	RESULT*				SIDE EFFECTS
						E	G	F-P	CNE	
Gastrojejunostomy	13	6-7	56	53	3.9	8	4	1	0	2
Gastrointestinal Bleeding	19	10-9	53	43	3.8	3	3	0	13	0
Oral Iron Intolerance	25	2-23	41	63	3.1	13	11	1	0	6
Chronic Ulcerative Colitis	6	1-5	36	13	2.2	1	1	0	4	0
Iron Malabsorption	33	11-22	56	107	2.9	11	4	6	12	2
Unreliable Patient	4	0-4	83	8	2.2	1	0	2	1	0
	100	30-70		287		37	23	10	30	10 (10%)

*Excellent
Good
Fair-Poor
Could Not Evaluate

References

1. Wallerstein, R.O.: Intravenous administration of large doses of iron dextran. *Clin. Res.* 8:105, 1960.
2. Wallerstein, R.O.: Intravenous iron-dextran complex therapy. *Blood* 32:690, 1968.
3. Newcombe, R.: Precautions in the intravenous use of iron dextran. *Postgrad. Med. J.* 43:372, 1967.
4. West, W.O.: Oral iron absorption study. Unpublished data, 1966.
5. Reddy, P.S., and Lewis, M.: The adverse effect of intravenous iron-dextran in rheumatoid arthritis. *Arthr. and Rheum.* 12:454, 1969.
6. Chernelch, M., Winchell, H.S., Pollycove, M., Sargent, T., and Kusubov, N.: Prolonged intravenous iron-dextran therapy in a patient with multiple hereditary telangiectasia. *Blood* 34:691 1969.
7. West, W.O.: A comparative study of various oral iron preparations. Unpublished data, 1967.
8. Kember, C. and Weintraub, L.R.: Malabsorption of iron secondary to iron deficiency. *N. Eng. J. Med.* 279: 453, 1968.
9. Hamstra, R., Block, M., and Newman, M.: Investigation of intravenous inferon in clinical medicine. Eleventh Congress of the International Society of Hematology, Sidney, Aug. 1966 (abstract).
10. Slade, I.H. and Iosefa, R.N.: Intravenous iron dextran (imferon) in the treatment of iron deficiency anemia. *J. Med. Assoc. Georgia* 57:137, 1968.
11. Roe, P.F.: The effect of varying concentrations of intravenous iron dextran (imferon) on the complication rate. *E. Afr. Med. J.* 45:713, 1968.
12. Henderson, P.A., and Hillman, R.S.: Characteristics of iron dextran utilization in man. *Blood* 34:357, 1969.
13. Basu, S.K.: Rapid administration of iron dextran in late pregnancy. *Lancet* 1:1430, 1963.
14. Carter, R.L.: Early development of injection-site sarcomas in rats: a study of tumours induced by iron dextran. *Brit J. Cancer* 23:559, 1969.
15. MacKinnon, A.E., and Brancewicz, J.: Sarcoma after injection of intramuscular iron. *Brit. Med. J.* 2:277, 1973.

Have You Moved Recently?

Please send any change of address to *The Journal of the Kentucky Medical Association*, 3532 Ephraim McDowell Drive, Louisville, Kentucky 40205. We need your help in keeping our mailing list up to date. You are our best source of information.

The Complete Digest of Proceedings of the House of Delegates will be in the December issue of *The Journal of KMA*

Medical Progress

Arterial Blood Gases

ROBERT W. POWELL, M. D.*

Definitions of Terms used in this Paper:

pH	negative logarithm of hydrogen ion concentration
H+	hydrogen ion
P _{CO₂}	partial pressure of carbon dioxide in mm/Hg
CO ₂	carbon dioxide
P _{O₂}	partial pressure of oxygen
O ₂	oxygen
HCO ₃	Bicarbonate (bicarb)
A-a	Alveolar-arterial oxygen gradient
PA _{O₂}	Alveolar partial pressure of oxygen
Pa _{O₂}	or P _{O₂} Arterial partial pressure of oxygen
PI _{O₂}	Partial pressure of oxygen in the inspired air
Hgb	Hemoglobin
FI _{O₂}	Fraction of inspired O ₂ (% oxygen)
pH	7.35-7.45
P _{CO₂}	35-45 mm/Hg
P _{O₂}	greater than 80 mm/Hg
Bicarb	23-27 meq/L
Hypocarb	P _{CO₂} less than 35 mm/Hg
Hypercarb	P _{CO₂} greater than 45 mm/Hg
Hyperoxia	P _{O₂} greater than 100 mm/Hg
Hypoxia	P _{O₂} less than 80 mm/Hg

} Normal arterial blood gases

THE basic physical principle of action = reaction lends ready analogy to clinical medicine in the context of laboratory testing. The "action" is the requesting and obtaining of data and the "reaction" is the clinician's response to the numbers provided. It is the physician's responsibility to insure that the reaction is equal to the action, in that his response is knowledgeably proper. The "action" with which this paper shall concern itself is arterial blood gases.

*Assistant Professor of Medicine, University of Louisville School of Medicine

Direct measurement of pH and P_{CO₂} with glass electrode, and P_{O₂} with platinum electrode, on arterial blood is easily accomplished. If it is done on a properly-collected sample in a correctly-calibrated apparatus by a dependable technician, the results reported will be reliable. However, as with most lab data, unreliable values are worse than no values at all. However, the above necessities for reliability can be met with minimal difficulty and must be met before the results are believable.

Proper collection requires that the arterial blood be drawn into and kept in an airless, heparinized syringe. Only a small amount of heparin is required (approximately 0.5 cc), or, for that matter, desirable. Plastic syringes are as good as glass for collection of arterial blood samples, but do not "wet"; therefore, a small amount of residual heparin must be left in them. If an air bubble is inadvertently drawn into the syringe with the arterial sample, it should be immediately removed. The syringe should then be capped, agitated gently to insure mixing of blood and heparin and taken promptly to the lab for prompt determination of the blood gases. If any delay is anticipated, the blood-filled portion of the syringe should be immersed in ice water until the evaluation is achieved.

That evaluation must be on a correctly-calibrated machine. Some blood gas machines are more dependable and more easily calibrated than others. These two factors are not necessarily correlated to cost. Both factors should be considered when buying or replacing a blood gas apparatus. The dependability of the technician is a personal problem on which I have no advice.

The other important factor is that the determination be done on arterial blood. There are generally two basic differences between

arterial and venous blood. Arterial is redder and pulsatile. However, in the severely hypoxic patient, the P_{O_2} may well be in the range of 40 mm/Hg and the amount of oxyhemoglobin may be insufficient to make the blood arterial red, removing the first criteria of difference. Therefore we must frequently depend on presence of pulsatile flow to establish the fact that the blood is arterial. If the arterial puncture is made with syringe attached to needle, frequently it is difficult to tell if the flow is pulsatile. For example, if the patient has low cardiac output or the syringe barrel is sticky (or plastic), the syringe might not fill without aspirating, or if the patient has elevated venous pressure, the syringe might fill without aspirating. Since much head-scratching, second-guessing, disbelief of values and unnecessary repetition of arterial blood gases could be avoided if one could be certain that the blood is arterial, the following method is suggested. It is simply to insert the free needle (detached from the syringe) into the artery, observe the pulsatile flow, then attach the needle to the airless heparinized syringe. The sample can then be aspirated into the syringe with assurance that the blood is arterial. This method is accurate but messy. One learns to stand to one side.

Assume that the values for pH, P_{CO_2} and P_{O_2} are reported and are accurate. What information is provided, what is the significance of the information, how does one react so as to benefit the patient?

Principles

pH: pH is the negative logarithm of the hydrogen ion concentration. The higher the pH, the fewer the H^+ . The lower the pH, the more H^+ . The normal pH is 7.35-7.45. Because pH is logarithmic, there is less change in H^+ concentration per unit pH change with increasing pH, than with decreasing pH. For example, there is a change of 15 Nanmoles H^+ from 7.4-7.6, but there is a 58 Nanmole H^+ change from pH 7.0 to 6.8. pH values greater than 7.45 mean alkalosis; values less than 7.35 mean acidosis. If the values are between 7.35-7.45, the patient has neither alkalosis or acidosis, regardless of P_{CO_2} or bicarbonate values. However, knowing the other values may tell us if some situation of

acidosis or alkalosis, previously present, has now become compensated; knowing the pH value tells us of the presence or absence of acidosis or alkalosis. We have to look elsewhere for the why. The "why" is found in the relationship between H^+ concentration, P_{CO_2} and bicarbonate.

P_{CO_2} : Normal P_{CO_2} is between 35-45 mm/Hg with a bicarbonate (HCO_3) of 23-27 meq/L; the normal H^+ of 40 Nanmoles is achieved which gives a normal pH of 7.35-7.45. This is true because there is a constant and direct relationship between concentration of carbon dioxide (CO_2) and free H^+ concentration, and therefore with pH. That relationship is as follows: carbon dioxide (CO_2) + water (H_2O) yields H_2CO_3 which dissociates to H^+ and bicarbonate (HCO_3). CO_2 is very soluble, diffuses rapidly in solution, and moves rapidly and easily from plasma to alveolus across the alveolo-capillary membrane. Therefore, P_{CO_2} directly correlates with adequacy, inadequacy or excess of alveolar ventilation.

Examples

Respiratory acidosis: If inadequate alveolar ventilation exists, P_{CO_2} rises, pH falls and respiratory acidosis results. To make this diagnosis on blood gas values, the pH must be below 7.35, and the P_{CO_2} greater than 45 mm/Hg. Since CO_2 diffuses more rapidly than O_2 the patient will also be hypoxic (if breathing room air). If the respiratory acidosis is acute, the bicarbonate will be normal. Such a situation might likely occur in a patient with central hypoventilation from phenobarbital overdose, whose values might be bicarb 25, pH 7.1, P_{CO_2} 70, and P_{O_2} 40.

If the inadequate alveolar ventilation is the cause of respiratory acidosis — and it is — restoring ventilation to normal would be the proper reaction.

Compensated Respiratory Acidosis: If inadequate alveolar ventilation persists, the body employs a compensatory mechanism to increase the pH toward physiologic values. This mechanism is the accumulation of increased amounts of bicarbonate by the renal tubules, which increase the plasma's buffering capacity, and increases the pH. The patient is less acidotic has an increased P_{CO_2} (greater than 45 mm/Hg) and an increased bicarbonate (greater than 27

neq/L). This patient is also hypoxic if breathing room air. Representative values would be pH 7.32, $P_{c_{O_2}}$ 62 mm/Hg, P_{O_2} 50 mm/Hg and bicarb 35 meq/L.

The correct response to compensated respiratory acidosis is to increase alveolar ventilation, supply added oxygen to the inspired air and wait for the renal tubules to excrete the extra bicarbonate bringing the pH (which will have been increased by the increased alveolar ventilation) back down to normal. It is also important, but frequently difficult, to reverse the underlying cause of the alveolar hypoventilation to such a degree that the patient can maintain the level of ventilation necessary to keep his $P_{c_{O_2}}$ normal after respiratory assistance is discontinued.

Metabolic acidosis: If the contributor of the hydrogen ion that decreases the pH below 7.35 is not respiratory (alveolar ventilation is adequate), then metabolic acidosis exists. This diagnosis requires that pH be decreased, $P_{c_{O_2}}$ decreased, and bicarbonate decreased. The $P_{c_{O_2}}$ could be normal except that increased H^+ drives ventilation and unless respiratory depression also is present, $P_{c_{O_2}}$ in metabolic acidosis will be decreased. Therefore, this condition is almost always partially compensated.

Ketoacidosis, lactic acidosis and methyl alcohol ingestion are causes of metabolic acidosis. Values of pH 7.15, $P_{c_{O_2}}$ 15 mm/Hg, and P_{O_2} 96, bicarb 7 meq/L would be representative.

The response needed is to give bicarb and correct the underlying disorder.

Compensated metabolic acidosis: As mentioned above, metabolic acidosis is almost always compensated to some degree. However, if the acidosis is mild, the compensation can be complete. Such a situation with chronically decreased bicarbonate, normal pH and decreased $P_{c_{O_2}}$ might result from renal tubular acidosis. Values such as pH 7.36, $P_{c_{O_2}}$ 20 mm/Hg, P_{O_2} 89 mm/Hg, and bicarbonate 13 meq/L might be obtained.

The proper reaction would be to correct the underlying causes of the disease. No respiratory manipulations are needed. A rebreathing bag to elevate the CO_2 would be inappropriate. Oral bicarbonate might very well be appropriate.

Metabolic alkalosis: If plasma bicarbonate is increased (greater than 27 meq/L) and pH is increased (greater than 7.45) and $P_{c_{O_2}}$ is normal, metabolic alkalosis is present. Two common causes are prolonged nasogastric suction and prolonged diuretic therapy with furosemide or ethacrynic acid. Both of these result from decreased chloride, which results in increased bicarbonate (ion balance must be maintained HCO_3 in substituting for Cl). Another frequently seen cause is administration of bicarbonate or lactate in excess or to the patient who isn't acidotic.

A representative set of values would be: pH 7.57, $P_{c_{O_2}}$ 43 mm/Hg, P_{O_2} 65 mm/Hg and bicarb 37 meq/L.

A correct response would involve replacing the chloride and correcting the underlying cause.

Compensated metabolic alkalosis: Patients with respiratory disease may very well decrease their alveolar ventilation with a resulting decrease in pH to compensate for metabolic alkalosis. If the pH is near normal, $P_{c_{O_2}}$ is elevated, and bicarb elevated, such as pH 7.47, $P_{c_{O_2}}$ 50 mm/Hg, bicarb 37 meq/L and P_{O_2} 50; compensated metabolic alkalosis may be present. This is especially likely to be true if the chloride is low or an exogenous source for bicarb can be found.

One cannot always be certain which went up first, $P_{c_{O_2}}$ or bicarb. As you have noticed, compensated states look alike. The representative values for compensated respiratory acidosis are a lot like the values for compensated metabolic alkalosis.

The correct response is to find and stop the cause, add chloride, increase alveolar ventilation, add oxygen and wait for the renal tubules to excrete the excess bicarb.

More Principles

P_{O_2} : The atmosphere is 20.93% oxygen. At sea level with atmospheric pressure of 760 mm/Hg, the P_{O_2} of air, saturated with water vapor, is 150 mm/Hg. The air that we breathe is saturated with water vapor by mid-trachea. The pressure of CO_2 reduces the PA_{O_2} to 105 mm/Hg, and since, even normally, part of the cardiac output goes through the lung without being oxygenated, the Pa_{O_2} is always less than

105 mm/Hg with greater than Pa_{O_2} 80 mm being normal.

The difference between alveolar P_{O_2} (PA_{O_2}) and arterial P_{O_2} (Pa_{O_2}) is the A-a gradient. A quick estimation of A-a gradient based on arterial blood gas values can be useful in determining the progress of the patient. This calculation is done as follows:

$$\begin{aligned}\text{PA}_{\text{O}_2} &= \text{PI}_{\text{O}_2} - (\text{Pac}_{\text{O}_2} \times 1.25) \\ &= 150 - (40 \times 1.25) \\ &= 150 - 50 \\ \text{PA}_{\text{O}_2} &= 100 \text{ mm/Hg}\end{aligned}$$

Therefore, if the $\text{Pa}_{\text{O}_2} = 80$, the A-a = $100 - 80 = 20 \text{ mm/Hg}$.

Therefore it follows that the patient with pH 7.45, Pc_{O_2} 40, P_{O_2} 70 has a smaller A-a gradient (30), is working less hard to breathe, and is not as sick as he was when his pH was 7.52, Pc_{O_2} 27, P_{O_2} 70, A-a = 46.25, even though his P_{O_2} 's are the same.

In order for oxygen from the air, ventilated into the lung, to get into the hemoglobin, it must be ventilated into alveoli that have perfusion with blood, and there must be good ventilation perfusion match-up. Ideal would be V/Q ratio of 1—a perfect matchup. Some lung units have that ratio. Some do not.

If the ratio is greater than 1—ventilation in excess of perfusion—no real harm is done, for all the blood that goes by such a lung unit is oxygenated. The only disadvantage to this situation is unnecessary ventilation or increased physiologic dead space.

The danger lies in V/Q less than 1—perfusion in excess of ventilation. In that case, blood is going by lung units without being oxygenated. Such blood gets back to the systemic arterial circulation with its deoxyhemoglobin and causes hypoxia. In fact, this mechanism, with many causes, is the most common reason for hypoxia.

Blood without hemoglobin would be relatively useless for carrying oxygen to the tissues. Fortunately, hemoglobin is available. Instead of 0.3 cc Oxygen/100 cc that can be carried in plasma, blood with hemoglobin of 15 gm% can carry 20 cc Oxygen/100 cc or 20 Vol%. The tissues extract an average of 4.5 Vol% O_2 from blood as it makes its round.

If hemoglobin could load O_2 easily in the lung and unload it easily in the tissues, it would be way ahead, and indeed this is the case.

This property of Hgb is achieved because of the "S" shape of the oxyhemoglobin dissociation curve. Another interesting characteristic of that curve is its flat upper portion. Hgb is about 90% saturated at a P_{O_2} of 60 mm/Hg and very little additional O_2 is added to Hgb by further increases in P_{O_2} . This brings us to a basic principle—hyperoxia (P_{O_2} greater than 100 mm/Hg) is unnecessary and in fact P_{O_2} greater than 200 mm/Hg is dangerous, as it will cause oxygen toxicity.

Another interesting point is that at 90% saturation, that necessary 4.5 Vol% O_2 is readily available for the tissues. Therefore a P_{O_2} greater than 60 mm/Hg is physiologically adequate. The bad things that happen to hypoxic patients happen at a P_{O_2} of less than 60 mm/Hg because of the inadequate tissue oxygenation that occurs at that level.

Therefore, if a patient is hypoxic he needs added O_2 ; if he is hyperoxic, he needs his FI_{O_2} reduced. A decision based on that principle can be made on the data provided by arterial blood gases.

The normal drive for ventilation is provided by changes in H^+ concentration achieved by increases in Pc_{O_2} . However, the patient who is chronically hypoxic, who has chronic elevation of Pc_{O_2} , may have reverted to the more primitive hypoxic drive for ventilation. This drive depends on changes (reduction) in P_{O_2} to initiate respiration.

If this is the case, a sudden increase in P_{O_2} as might be achieved by high flow (5 L/min or greater) nasal O_2 may turn off this patient's respiratory drive and kill him. Typical values might be pH 7.25, Pc_{O_2} 70, P_{O_2} 45, bicarb 35. However, this patient is hypoxic and needs added O_2 . Don't deny this patient the O_2 he needs; just be prepared to provide ventilatory support if it becomes necessary.

Practice

The following examples are included for the physician to test his skill at interpreting arterial blood gases and to decide what would be the proper clinical response. Both interpretation and response can be compared with those that this writer considers correct by turning to page 614.

The expected type of response is exemplified by the example given.

Arterial Blood Gas & Bicarb Values	Interpretation	Clinical Setting	Response
Example pH 7.4 Pc ₀₂ 40 P ₀₂ 88 Bicarb 25 Interpretation:	normal normal normal normal Normal arterial blood gases.	34-year-old pulmonary physician who is tired of working on this paper.	Normal. No respiratory manipulation required.

Arterial Blood Gas & Bicarb Values	Interpretation	Clinical Setting	Response
Case #1 pH 7.19 Pc ₀₂ 62 P ₀₂ 50 Bicarb 25 Interpretation:		19-year-old male heroin addict, who has overdosed. Respiratory rate 8 per minute. Respiration shallow. Patient is comatose. He is breathing room air.	

Case #2 pH 7.33 Pc ₀₂ 65 P ₀₂ 55 Bicarb 35 Interpretation:		63-year-old man with 100 pack/years cigarette smoking history, who has known chronic bronchitis and emphysema, is in the office for routine follow-up feeling fairly well breathing room air.	
---	--	---	--

Case #3 pH 7.19 Pc ₀₂ 15 P ₀₂ 95 Bicarb 8 Interpretation:		19-year-old juvenile onset diabetes mellitus who has had no insulin for 3 days. Patient in E.R., comatose, dry; Kussmaul breathing, glucose 580, serum acetone strongly positive in 3:1 dilution.	
--	--	---	--

Case #4 pH 7.33 Pc ₀₂ 26 P ₀₂ 93 Bicarb 15 Interpretation:		68-year-old man who is moderately dehydrated. BUN is 85.	
---	--	--	--

Case #5 pH 7.70 Pc ₀₂ 20 P ₀₂ 91 Bicarb 25 Interpretation:		22-year-old patient who is in E.R., hysterical, non-communicative; breathing deeply and rapidly.	
---	--	--	--

Case #6 pH 7.47 Pc ₀₂ 60 P ₀₂ 50 Bicarb 38 Interpretation:		71-year-old man with chronic obstructive pulmonary disease who is 4 days post TUR for benign prostatic hypertrophy whose fluid replacement has been with lactated ringers of 3000 cc qd. Pre-op gases—pH 7.4, Pc ₀₂ 48, P ₀₂ 63, bicarb 28.	
---	--	---	--

Answers

Arterial Blood Gas & Bicarb Values	Interpretation	Clinical Setting	Response
Example pH 7.4 P_{cO₂} 40 P_{O₂} 88 Bicarb 25 Interpretation:	normal normal normal normal Normal arterial blood gases	34-year-old pulmonary physician who is tired of working on this paper.	Normal. No respiratory manipulation required.
Case #1 pH 7.19 P_{cO₂} 62 P_{O₂} 50 Bicarb 25 Interpretation:	acidosis hypercarbia hypoxia normal Acute respiratory acidosis	19-year-old male heroin addict who has overdosed. Respiratory rate 8 per minute. Respiration shallow. Patient is comatose. He is breathing room air.	Ventilatory support. Added oxygen if ventilation with room air does not raise P_{O₂} to over 60 mm/Hg.
Case #2 pH 7.33 P_{cO₂} 65 P_{O₂} 55 Bicarb 35 Interpretation:	very mild acidosis hypercarbia hypoxia increased Compensated respiratory acidosis	63-year-old man with 100 pack/years cigarette smoking history, who has known chronic bronchitis and emphysema, is in the office for routine followup feeling fairly well breathing room air.	Tell him to stop smoking again. Home oxygen may be indicated. Check for infection and purulent sputum.
Case #3 pH 7.19 P_{cO₂} 15 P_{O₂} 95 Bicarb 8 Interpretation:	acidosis hypocarbia normal decreased Metabolic acidosis (Ketoacidosis)	19-year-old juvenile onset diabetes mellitus who has had no insulin for 3 days. Patient in E. R. comatose, dry; Kussmaul breathing, glucose 580, serum acetone strongly positive in 3:1 dilution.	Fluids, insulin, bicarb. In other words, treat the DM. No ventilatory manipulations are indicated.
Case #4 pH 7.33 P_{cO₂} 26 P_{O₂} 93 Bicarb 15 Interpretation:	very mild acidosis hypocarbia normal decreased Compensated metabolic acidosis	68-year-old man who is moderately dehydrated. BUN is 85.	Replace Bicarb and if possible treat the underlying renal disease.
Case #5 pH 7.70 P_{cO₂} 20 P_{O₂} 91 Bicarb 25 Interpretation:	Alkalosis hypocarbia normal normal Respiratory alkalosis	22-year-old patient who is in E.R., hysterical, non-communicative; breathing deeply and rapidly.	Evaluate. Reassure. When patient is calm, explain the dangerous effects of hyperventilation.
Case #6 pH 7.47 P_{cO₂} 60 P_{O₂} 50 Bicarb 38 Interpretation:	very mild alkalosis hypercarbia hypoxia increased Compensated metabolic alkalosis	71-year-old man with chronic obstructive pulmonary disease who is 4 days post TUR for benign prostatic hypertrophy whose fluid replacement has been with lactated ringers of 3000 cc qd. Pre-op gases: pH 7.4, P_{cO₂} 48, P_{O₂} 63, bicarb 28.	Stop the lactate. Give added O₂ and IPPB. Observe carefully and wait.

Summary

This paper has dealt with arterial blood gases. A method to insure that arterial blood is obtained is given. Respiratory acidosis, metabolic acidosis, respiratory alkalosis, metabolic alkalosis and use of oxygen values were discussed. Clinical settings and representative values were given for programmed practice and to give emphasis to the clinical usefulness of arterial blood gases. It is my hope that the material in this paper has contributed to the reader's ability to react equal to the action of obtaining arterial blood gases.

Letters To The Editor

The Letters To The Editor column is a means for the KMA physicians to express their opinions and viewpoints on varied topics. If you have an item you would like brought before your fellow practitioners, please submit it to Letters To The Editor, Kentucky Medical Association, 3532 Ephraim McDowell Dr., Louisville, Kentucky 40205. Communications should not exceed 250 words. The right to abstract or edit is reserved by the editors of *The Journal*. Names will be withheld upon request, but anonymous letters will not be accepted.

Dear Doctor Rainey:

Just a short note to say hooray and amen to your incisive article on "Medicaid—Time to Fish or Cut Bait?" which appeared in the September 1974 issue of *The Journal of the Kentucky Medical Association*.

Having practiced medicine in a university setting in Seattle, Washington, for nearly six years prior to coming to the University of Kentucky Medical Center in 1972, I had the opportunity to care for Medicaid patients in two states of essentially equal population but with vastly different commitments to the care of medically indigent people. The contrast is that of night and day. The state of Washington's well-funded program delivers effective

care and the state of Kentucky's program is a disgrace and certainly not worthy of this fine state's potential to do much better by these needy people. The facts you list in your "Message From The President" speak for themselves. More importantly, I hope that in your position as President of the Kentucky Medical Association you can bring these facts to the attention of the Governor and educate him to place Medicaid on a much higher funding and administrative priority.

J. William McRoberts, M.D.

Professor of Surgery

Chief, Division of Urology

University of Kentucky Medical Center

Lexington 40506



GRAND ROUNDS



The University of Kentucky College of Medicine

This Journal feature will be presented alternately by the University of Louisville and the University of Kentucky Department of Medicine and Departments of Surgery. We hope to have these features revolve around subjects of immediate practical interest to the practicing physician; and, for those of us not able to attend grand rounds in the teaching centers as often as we might, we hope this will represent a bit of a refresher course.

Acute Pancreatitis—A Continuing Dilemma

CASE #1: *E.D.* #26-48-31-9. This was the first University of Kentucky Medical Center admission for this 41-year-old black male alcoholic who was referred for evaluation of abdominal pain. The patient disclosed a long history of ethanol abuse and had been admitted to the Kentucky State Hospital on three different occasions in the past for chronic alcoholism. His last admission to the Kentucky State Hospital was approximately two weeks prior to admission, at which time he began having upper abdominal pain which persisted up until the time of his admission to the Medical Center. Although vomiting was not a prominent part of his recent history, he did have episodes of periodic hematemesis in the past. He described the pain as severe, extending throughout the abdomen and into his left chest and aggravated by coughing and motion. The pain was somewhat alleviated by sitting up and bending over. His past medical history was unremarkable except for mild, lower urinary tract obstructive symptoms.

On physical examination he was a well-developed but thin Negro male appearing older than his stated age of 40 years. BP—110/80, P—124, T—99.6°. The sclerae were non-icteric. The heart was in regular rhythm and not enlarged to clinical examination. The heart sounds were normal. The chest showed decreased breath sounds at the left base with dullness to percussion. The abdomen was flat with generalized tenderness and marked voluntary guarding and rebound. Bowel sounds were hypoactive. Rectal examination was normal.

Admission laboratory data showed HCT—37, WBC—27,000 with 69 segmented neutrophils and 16 stab forms, BUN—14, fasting

blood sugar—130, and amylase—5104 international units (normal value less than 3400 international units); serum electrolytes, calcium, and urinalysis were all normal. Chest x-ray showed marked atelectasis of the left lower lobe. There were multiple air fluid levels in the colon and small intestine on the admission abdominal film. Arterial blood gas determination showed a pO_2 of 74.8, pCO_2 —35.3, and pH—7.44.

The admitting impression was that of chronic relapsing pancreatitis with an acute exacerbation secondary to alcoholism. The patient was initially treated with intravenous fluid replacement, naso-gastric decompression, thiamine, and intravenous antibiotics. The patient remained acutely ill for approximately 72 hours but his amylase returned to normal on the second hospital day and his liver function tests were never elevated. He subsequently improved on conservative management and was discharged on the 14th hospital day.

CASE #2: *P. C.* #18-75-96-2. This was the second University of Kentucky Medical Center admission for this 57-year-old Caucasian woman who was well until 24 hours prior to admission when she developed the acute onset of severe upper abdominal pain unrelieved by analgesics administered by her local physician. She was later hospitalized at her local hospital on the evening prior to admission because of progression in her pain and the development of protracted vomiting. She was then transferred to the University of Kentucky Medical Center. Past history revealed that she was hospitalized here three years prior to admission subsequent to an automobile accident, and she underwent splenectomy at that time. She also had a history of hypertension and her medications included hydrochlorthiazide. The remainder of her past history was unremark-

From the Department of Surgery, University of Kentucky Medical Center, Lexington.

able. On physical examination she was an acutely ill, pale, slightly diaphoretic obese woman. BP was palpated at 75 mm Hg, P—140, T—101°. Examination of the head and neck was normal. The patient was not jaundiced. The chest was clear and the heart was in regular rhythm with an S-4 gallop. The abdomen was silent, diffusely protuberant with tenderness and rebound in the mid-abdomen. A previous midline surgical scar was present. Rectal examination confirmed tenderness high in the pelvis but was otherwise non-revealing.

Admission laboratory data included HCT of 50, WBC—9000, glucose—450, BUN—27, amylase—10,688, sodium—132, potassium—3.4, chloride—102, CO₂—13, Ca++—3.8 meq/L, pO₂—64, pCO₂—24, and pH—7.4. The urinalysis showed a large amount of glucose but no acetonuria. The cardiogram and abdominal films were normal. A right hilar mass was suggested on admission chest film.

The early hospital course was characterized by rapid infusion of intravenous fluids, and plasmanate with replacement of potassium losses. A transient favorable response, as evidenced by stabilization of vital signs and improvement in her sensorium, was followed by deterioration in these parameters as well as a drop in urine output and progression of clinical shock. A diagnostic peritoneal lavage was performed with the findings of cloudy peritoneal fluid containing many leukocytes. Because of the patient's rapid deterioration, an exploratory celiotomy was favored to exclude an occult perforation or mesenteric infarction. At operation, acute edematous pancreatitis was noted. The peritoneal cavity was irrigated with copious amounts of saline solution, the gastrocolic omentum was opened, the pancreas inspected, and no hematoma or fluid collection discerned. Manipulation of the pancreas and duodenum was avoided but the portal triad was gently palpated. No stones were present. It was elected to close the patient without drains and to control further fluid accumulation by peritoneal dialysis as described by Bolooki.¹

In the initial postoperative period the patient developed profound respiratory failure requiring respirator support, a consumption coagulopathy which responded to heparinization, and acute renal failure which was treated successfully without hemodialysis. She subsequently rallied and was weaned from the respirator but progressed to develop a *Pseudomonas* pneumonia which, despite vigorous pulmonary

measures including tracheostomy, developed into an overwhelming septic process and she expired on the 38th hospital day. A post-mortum examination was declined by the family.

Acute pancreatitis has been recognized as a distinct clinical entity since its original description by Reginald Fitz in 1889. It remains a disease of incompletely understood pathophysiology and multiple apparent etiologies. It is also a poorly understood clinical entity, in part due to difficulty in diagnosing its presence, and to a marked variability in its natural history. Acute pancreatitis pursues an extraordinarily variable course ranging from mild edematous pancreatitis, mimicking biliary colic or acute gastritis, to a fulminant necrotizing process with hemorrhage, cardio-vascular collapse and a rapidly fatal course. Many patients recover with naso-gastric suction, intravenous fluid therapy and general supportive care; in others, serious or lethal respiratory, septic, hypotensive and other complications develop. The early identification of those patients with more serious forms of pancreatitis has usually been based on subjective criteria and, because of uncertainty in diagnosis of medically treated patients, control studies are difficult to find.

One of the interesting aspects of acute pancreatitis has been the disparity between the etiology of this disease in the tax-supported hospitals and in the community hospitals (See Table 1). Acute pancreatitis, regardless of etiology, can simulate almost any abdominal catastrophe. The primary diagnosis rests on the findings of abdominal pain, usually upper abdominal in location with radiation to the back, usually of gradual onset and associated with vomiting in the vast majority of patients. Physical examination may not be helpful in excluding other acute surgical illnesses.

Elevation of the serum amylase is the time-honored test utilized to diagnose acute pancreatitis. Amylase enters the blood by disruption of pancreatic acini or by elevated intraductal pressure forcing enzyme-rich fluid

TABLE 1
INCIDENCE OF CAUSES OF ACUTE PANCREATITIS
(From Baker²)

	Tax-Supported Hospitals	Community Hospitals
Alcoholic pancreatitis	65-80%	10-20%
Biliary tract disease	10-15%	45-65%
Metabolic derangements	1-2%	1-2%
Post-operative	1-8%	2%
Traumatic	1/2-3%	1/2-1 1/2%
Idiopathic	3-15%	10-30%

through intercellular clefts where it is picked up by peri-pancreatic lymphatics and eventually finds its way to the venous blood. During a typical attack, the amylase will peak by about 48 hours and return to normal by the fifth day. Prolonged hyperamylasemia suggests persistently elevated intraductal pressure generated by an actively secreting gland and usually implies ductal obstruction. Amylase is removed from the blood by the kidneys but renal clearance of amylase is not directly related to serum concentration. For this reason, diagnostic elevations of urine amylase are seen when serum levels may be normal.

How useful then is the amylase determination? In a study from Ohio State in which 432 consecutive patients with hyperamylasemia were evaluated³, approximately 20% had non-pancreatic disease, and two-thirds of these suffered from a disease process which would probably not be confused with acute pancreatitis, for example, mumps, renal failure, hepatitis, etc. However, a significant percentage were ill with serious conditions such as acute cholecystitis, perforated duodenal ulcer, intestinal strangulation, mesenteric arterial occlusion, and ruptured abdominal aortic aneurysm. This is not merely an academic point. Of these acute abdominal conditions, only two, acute pancreatitis and possibly cholecystitis, can be expected to respond to non-operative measures.

Radiographic studies in the early clinical course are limited. The acute abdominal series perhaps has its greatest usefulness excluding free perforation. Yet there are several possible findings on plain chest and abdominal films which support the diagnosis of pancreatitis. The first is the sentinel loop, classically a transversely oriented single distended loop of the duodenum suggesting an adjacent inflammatory process. A left pleural effusion is suggestive. Findings of pancreatic calcification imply chronic pancreatitis and support the possibility of a recurrent attack. Present may be the colon cutoff sign in which the distended transverse colon is visible to about its midpoint and then the remainder of the transverse colon, descending colon and sigmoid are free of gas. To explain this important radiographic sign, it is important to recall that the transverse mesocolon is close and invests the neck and body of the pancreas, and this sign develops because of transverse colon paralysis.

The generally accepted therapeutic program of acute pancreatitis has undergone evolution-

ary development. Emergency operation with direct attack upon the inflamed gland was advocated in the early part of this century and attended by an extraordinarily high mortality. A program of supportive non-operative therapy followed, and has held sway virtually unchallenged to the present time. However, the failure of conservative therapy to cope successfully with the more severe forms of pancreatitis has led to a recent reappraisal of the role of operative therapy in the management of acute pancreatitis. The generally accepted and conservative approach is aimed at resuscitation with restoration of the depleted intra-vascular volume, the decrease of gastric acidity and secretin production by the passage of a naso-gastric tube, the decrease of acinar cell output by the use of vagolytic agents such as Atropine, and the relief of pain, usually requiring narcotics. Morphine, despite its effect on the sphincter of Oddi, is the drug of choice in these very ill people. However, serum amylase determinations should be obtained prior to the administration of any narcotic because morphine alone has been shown to elevate the serum amylase. The use of antibiotics is generally accepted as standard therapy.

A recent report by Ranson⁴ in which various laboratory and clinical parameters were statistically applied to treatment programs and prognosis is a valuable contribution to this field. In this report, 100 patients were studied with acute pancreatitis. In 27 the diagnosis was proven at operation or autopsy. The remaining 73 had pain, vomiting, abdominal tenderness, elevated amylase and an overall clinical course compatible with the diagnosis. Initial conservative management was as previously discussed, although vagolytic agents were not consistently used. After the first 40 patients were evaluated, a trend developed identifying patients with more severe pancreatitis (Table 2). Patients

TABLE 2
SIGNIFICANT OBJECTIVE PROGNOSTIC SIGNS
IN ACUTE PANCREATITIS (from Ranson⁴)

ADMISSION
Age over 55 years
Blood glucose > 200 mg. %
WBC > 16,000
LDH > 700 IU
SGOT > 250 S-F units
INITIAL 48-HOUR THERAPY
Hematocrit level decreased over 10 pts.
Serum calcium < 8 mg. %
Base deficit > 5 meq/l
BUN increase > 5 mg. %
Fluid retention > 6 liters
Arterial pO ₂ < 60 mm Hg
Presence of 3 or more of these signs suggests poor prognosis.

were then grouped into those who recovered without life-threatening complications and those who either died or were seriously ill, that is, required more than seven days in an Intensive Care Unit. Of patients with more than three of these positive prognostic signs, 62% died and an additional 35% were seriously ill. Of patients with less than three positive prognostic signs, 3% died and 11% were seriously ill, of which eight had operations.

What, then, is the role of operative therapy in acute pancreatitis? In this study, a small group of patients randomly assigned to early operation or non-operative management revealed that, in the operated patients, intra-abdominal sepsis and respiratory complications were more severe and the mean Intensive Care Unit and hospitalization stay was significantly greater. In addition, there were 17 non-randomized patients managed by early operation. Of the high risk patients who underwent pancreatic resection or common duct exploration, mortality was 100%. Three patients with biliary tract disease and low risk factors survived after cholecystectomy and local drainage. In a similar low risk group, four patients underwent abdominal exploration with the insertion of a gastrostomy, cholecystostomy, and feeding jejunostomy. Soft sump drains were employed to drain the anterior and posterior aspects of the pancreas bilaterally. Sub-hepatic and left sub-phrenic drains were also inserted. Mortality from this procedure was 25%.

Operation, however, may be undertaken to avoid missing a surgically-correctable lesion and, if so, an appropriate procedure would be to irrigate the peritoneal cavity with copious amounts of saline solution, open the gastrocolic omentum, and inspect the pancreas but avoid manipulation of the pancreas or duodenal C-loop. The portal triad should be palpated to detect choledocholithiasis, if present, and a cholecystostomy may be done, not so much to drain the biliary tract as to provide an access for subsequent cholangiography. To drain or not to drain acute pancreatitis is a highly controversial subject although current thinking seems to support the use of drains.⁵ Drains in this disease accomplish several objectives. First, they prevent reaccumulation of fluid in the peritoneal cavity. Second, they allow egress of grossly necrotic material which may later slough. Thirdly, they allow rapid de-

tection of fistula formation should erosion develop. The major criticism of draining patients with acute pancreatitis centers about secondary contamination of the rich culture medium of the retroperitoneal phlegmon. In a series of 324 cases of acute pancreatitis reported by Trapnell⁶, 91 patients underwent exploration during the active stage of the disease. There was no difference in morbidity or mortality between the operated and non-operated groups. The majority were not drained.

One of the interesting observations to come out of the Ranson study was the correlation of anatomic pathologic findings with the clinical course of the patients. Edematous pancreatitis appears as moderate enlargement of the gland with edema and hyperemia and a variable amount of fat necrosis. Hemorrhagic pancreatitis is defined as frank bleeding into the pancreas and retroperitoneal tissues with dark purple-brown color to the entire area. A phlegmon implies an inflammatory mass obscuring the normal landmarks with areas of ecchymosis and fat necrosis. Ranson found that of the nine patients with less than three positive prognostic signs and expected to do well, eight of the nine had edematous pancreatitis. Of the group of ten patients with four to eight positive signs and a poor prognosis, eight of the ten had hemorrhagic pancreatitis and one had a phlegmon.

Table 2 summarizes those factors that were felt to be significant in predicting serious illness. Most of these are self-explanatory. The tendency for increased age to be associated with poor prognosis has been recognized for some time. Although abnormalities in serum bilirubin and alkaline phosphatase transaminase levels have been reported in acute pancreatitis and have variously been attributed to biliary obstruction, hepatic parenchymal necrosis, and pericholangitis, statistically, elevations in lactic dehydrogenase and serum glutamate oxalate transaminase appeared important. Also note that a rise in the blood urea nitrogen value during the period of vigorous volume replacement, when a fall in BUN should be expected, was a sensitive prognostic index.

Opinion regarding early exploration for acute pancreatitis remains sharply divided. Where doubt exists regarding the precise nature of the underlying disease, it is safe to say that if the patient has pancreatitis, little is lost

by operation and, if some other disease is revealed, much may be gained. On the basis of the NYU study, however, specific early operation for acute pancreatitis has not been shown to be beneficial.

KIMBALL I. MAULL, M.D.
WILLIAM L. DOWDEN, M.D.

References

1. Bolooki, H. and Gliedman, M. L.: Peritoneal dialysis in treatment of acute pancreatitis. *Surgery* 64:466, 1968.
2. Baker, R. J.: Acute surgical diseases of the pancreas. *Surg. Clin. N. Am.* 52:239, 1972.
3. Elliott, D. W. and Williams, R. D.: A re-evaluation of serum amylase determinations. *Arch. of Surg.* 83:146, 1961.
4. Ranson, J. H., Rifkind, K. M., et al.: Prognostic signs and the role of operative management in acute pancreatitis. *S. G. & O.* 139:69, 1974.
5. Waterman, N. G., Walsky, R., Kasdan, M. L., and Abrams, B. L.: The treatment of acute hemorrhagic pancreatitis by sump drainage. *S. G. & O.* 126:963, 1968.
6. Trapnell, J. E. and Anderson, M. C.: Role of early laparotomy in acute pancreatitis. *Ann. Surg.* 165:49, 1967.

Professional



Protection

CONTINUOUSLY

Since 1899

**THE
MEDICAL PROTECTIVE COMPANY**

FORT WAYNE, INDIANA

LOUISVILLE OFFICE: Riley Lassiter, Representative
Suite 260
Shelbyville Road Mall Office Center
400 Sherburn Lane
Telephone: (Area Code 502) 895-5501
Mailing Address: P.O. Box 20065, Louisville, Kentucky 40220



MATERNAL MORTALITY



From the Files of the KMA Maternal Mortality Study Committee

—Edited by John W. Greene, Jr., M.D.

CASE 3-72. This 20-year-old, married white Gravida 1, Para 0, was admitted to the hospital on March 27, 1972, with a two day history of intermittent right flank pain at 24 1/2 weeks gestation. She had no nausea or anorexia. The impression was pyelonephritis with possible appendicitis or a ureteral stone. An IVP was obtained which was normal. A consultant felt that she had appendicitis. She was operated upon and an acute suppurative appendix was removed. Her post-operative course was unremarkable and she was discharged on March 30th. She did complain of intermittent right lower quadrant pain following discharge.

She was readmitted to the hospital on April 6th in premature labor and delivered a 1 lb 11 oz female at 7:44 a.m. She spiked a fever of 101.6° at 10:30 a.m. She was pale and complained of severe gas pains substernally. She also had marked right CVA tenderness and mild left CVA tenderness. She continued to be short of breath and her abdomen gradually became distended with decreasing bowel sounds. She was treated with intravenous fluids. Chest x-ray was reported normal. The WBC was 4,000. Blood cultures were obtained and she was started on Kantrex on April 6th. She continued vomiting with abdominal distension. Fever was 101-102°. She continued on intravenous fluids and Levin drainage.

A consultant was called. He felt there had been leakage around the appendiceal stump which had adhered to the uterus and, with labor, the uterus had pulled this abscess pocket open. He felt the conservative treatment should be continued. She was placed on Chloremycetin and seemed to improve the next day on April 8th. The blood culture grew out coagulase negative staph. She had a bowel movement the 9th and seemed improving. She continued to spike a temperature elevation intermittently.

Kanamycin was discontinued April 12th, and she was started on gentamicin. Her general course didn't improve and she seemed to be deteriorating April 14th. An exploratory laparotomy was considered mandatory. Numerous intra-abdominal abscesses with pus in both pelvic areas and both subdiaphragmatic areas were found. On mobilizing the cervix and rotating it, the previous retrocecal appendiceal stump was noted and there was no ligature upon it. It was assumed that the ligatures slipped off. The cecum was mobilized and attempt was made to exteriorize this; however, due to the marked inflammatory reaction, this couldn't be done. The stump was ligated and the cecum pulled up to the old appendectomy incision and sutured to the peritoneum and to the fascia. A large Foley catheter with a 30 cc bag was inserted into the cecum creating a tube cecostomy. Multiple drains were then placed through the flank incision going into both subphrenic areas and the pelvic gutters. The incision was closed with stay sutures. She had good urinary output and her vital signs were stable.

The morning following surgery the patient's fever was 102°. Her intake and output were good and she was responding. HCT was 40%, Na 130 mg%, Potassium 4.7.

The following day temperature was still 102° in the morning. Urine output was 3100 cc with 1100 from the Levin tube. She had received considerable fluid during surgery and it was felt that she was well hydrated. Intravenous intake was 4700 cc, including two units of serum albumin. An SMA-12 on April 12th had demonstrated an albumin of 1.3 and total protein of 3.9. Otherwise it was normal.

Postoperatively she was continued on her gentamicin 60 mg intramuscularly every 8 hours. On April 17th she was having, due to her tremendous protein loss and infection, an

inability to take oral food, and it was felt that intravenous elementation should be implemented; on April 17th this was begun. She was started with one unit the first day, through the third, and from thenceforth continued on three units of FreAmine a day, without any great difficulty with loss of sugar in the urine or ketosis. Periodic blood sugars were within a normal range, and she handled this quite well. By April 18th she had passed flatus. The nasogastric tube was clamped. She tolerated this well and subsequently it was removed. During this period numerous laboratory studies were obtained to follow her blood picture. Blood transfusions were given as needed and several units of albumin were given. On April 19th albumin was 1.8 and total protein was 5.3. On April 25th albumin was 2, total protein was 6.3, and on May 2nd albumin was 2.5 and protein 6. Over the ensuing day she seemed to gradually improve. By April 25th it was noted that she had a definite wound infection. The cecostomy was draining adequately and she was taking some food. On April 27th the wound was debrided and all silk sutures were removed.

Over the next 4-5 days she was maintained on both oral intake and her intravenous intake. She had good intake and output. On May 2nd her Hgb was 12.4, Hct 38.0, and she developed a large abscess from her left Penrose drain. This was probed with a finger and the sinus tract opened with discharge containing feces. A barium enema which was performed that afternoon demonstrated a draining fistula from the cecum across the abdomen and out the left flank drain. It was felt that since she had a definite established fistulous tract that a period should be given to see if the fever would lyse due to this sudden draining of what was probably a pre-existing abscess; however, she continued to be febrile over the next day or so and continued to have a fecal discharge from her Penrose drain. She was transferred to a center for further treatment.

ADMISSION LABORATORY DATA:
Hematocrit 38%; White count 18,600; essentially normal electrolytes; BUN was 13.

Hospital Course

Draining of the pelvis and right and left gutters was established after admission by insertion of sump drains. This resulted in draining a large amount of fecal material. Subsequently the patient was transfused, hydrated,

and prepared for surgery. On May 7th she underwent exploratory laparotomy with findings of a pelvic, right subhepatic, and large left subphrenic abscesses. The cecostomy site appeared to be leaking intra-abdominally and the site of the old appendiceal stump appeared to be open and draining into the abdominal cavity. This was the area palpable through the cecostomy site. The sump drains were placed in multiple sites and both gutters were drained. The pelvis drained through the vagina. Large subphrenic abscesses were drained with multiple Penrose drains and a sump drain. The patient initially did reasonably well, but required postoperative respiratory assistance. This required continued tracheal intubation and the patient was scheduled for an elective tracheostomy on May 9th. On May 12th, a leak was detected of gastric fluid into the left subphrenic space which was felt to be attributable to the sump tube in this area. This was withdrawn and over a period of several days this fistula appeared too close. The patient was begun on Vivonex feedings via a Miller-Abbott tube which was passed to the ligament of Treitz. She tolerated these feedings well. A persistent fluctuating pneumonitis required meticulous pulmonary toilet. She continued to require ventilator assistance. The patient remained in satisfactory fluid and electrolyte balance and was supported by periodic transfusions and infusions of albumin. On May 28th, the patient had an episode of gram negative shock and a spontaneous left pneumothorax. She responded to treatment and insertion of a chest tube. On June 2nd, the patient developed a fistula just proximal to the ileostomy stoma. She was taken to the operating room where the fistula was closed under local anesthesia. On June 3rd, the patient had a right spontaneous pneumothorax with a hypotensive episode. However, she responded to tube thoracostomy and appropriate supportive measures. The respiratory system continued to be a most persistently bothersome problem with tracheal aspirate cultures yielding *Pseudomonas*, *Serratia* and *Candida* species on several occasions. On June 7th, the patient had a hypotensive episode and her temperature dropped to 94° rectally. She responded to supportive measures and warming, but thereafter it became increasingly difficult to maintain reasonable blood gases. She developed renal failure which did not respond to the appropriate measures. The patient expired on June 8, 1972, and a postmortem examination was ob-

tained. The provisional anatomic diagnosis was:

Fibrinous and fibrous peritonitis with multiple draining sinuses.

Bastro-peritoneal fistula.

Bilateral fibrinous pleuritis, right greater than left.

Acute pneumonia with multiple micro-abscesses, left lung and right lower lobe.

Large hepatic infarct (19 X 13 X 7 cm) upper right lobe.

Probable bacterial endocarditis, tricuspid valve.

Acute hematogenous pyelonephritis, mild, bilateral.

Pulmonary thromboembolus, solitary, left lower lobe segmental artery with small sub-pleural infarct (2 cm).

Hepatomegaly.

Jaundice, moderate.

Multiple small wide-necked diverticula of duodenum.

Multiple surgical stomata.

Two small gastric erosions, superficial.

Comments

The committee on maternal mortality considered this case an indirect obstetrical case, with possible preventable factors. It was noted that on the 6th of April she was readmitted to the hospital and the possibility of a ruptured appendiceal stump was entertained. However, she was not operated on for two more days, that is, until the 8th of April. It was felt that as soon as this diagnosis was entertained, re-exploration of the abdomen with appropriate treatment was in order. It was also felt that possibly more intensive antibiotic therapy very early in the course of her second admission might have played a significant role in helping her. This is indeed an unfortunate situation. It is to be emphasized again that appendicitis is still the leading cause of acute abdomen. It should also be noted that there is at least a 90% mortality when bilateral subphrenic abscesses are present.

General LEASING

Doctor! This is Your Own Plan
ENDORSED BY THE

**Kentucky Medical
Association**

for the leasing of

Cars—All makes & models,
Medical, Surgical & Laboratory
Equipment
and Office Furnishings.

**16 YEARS EXPERIENCE
IN THIS FIELD**

**General Leasing
CORPORATION**

121 Bauer Ave. St. Matthews

(502) **896-0383**



Why is Gantanol[®] (sulfamethoxazole) basic therapy in nonobstructed urinary tract infections?

Before prescribing, please consult complete product information, a summary of which follows:

Indications: Acute, recurrent or chronic nonobstructed urinary tract infections (primarily pyelonephritis, pyelitis and cystitis) due to susceptible organisms. **Note:** Carefully coordinate *in vitro* sulfonamide sensitivity tests with bacteriologic and clinical response; add aminobenzoic acid to follow-up culture media. The increasing frequency of resistant organisms limits the usefulness of antibacterials including sulfonamides, especially in chronic or recurrent urinary tract infections. Measure sulfonamide blood levels as variations may occur; 20 mg/100 ml should be maximum total level.

Contraindications: Sulfonamide hypersensitivity; pregnancy at term and during nursing period; infants less than two months of age.

Warnings: Safety during pregnancy has not been established. Sulfonamides should not be used for group A beta-hemolytic strep-

tococcal infections and will not eradicate sequelae (rheumatic fever, glomerulonephritis) of such infections. Deaths from hypersensitivity reactions, agranulocytosis, aplastic anemia and dyscrasias have been reported and early clinical signs (throat, fever, pallor, purpura or jaundice) may indicate blood disorders. Frequent CBC and urinalysis with examination are recommended during sulfonamide therapy. Insufficient data on children under six with chronic renal disease.

Precautions: Use cautiously in patients with impaired hepatic function, severe allergy, bronchial asthma; in phosphate dehydrogenase-deficient individuals in whom related hemolysis may occur. Maintain adequate fluid intake to prevent crystalluria and stone formation.

Adverse Reactions: Blood dyscrasias (agranulocytosis, aplastic anemia, thrombocytopenia, leukopenia, hemolytic ane-

Because it is considered a good choice...

- for efficacy in nonobstructed cystitis, pyelonephritis and pyelitis
- for control of susceptible *E. coli*, *Klebsiella-Aerobacter*, *Staph. aureus*, *Proteus mirabilis* and, less frequently, *Proteus vulgaris*
- for prompt antibacterial blood and urine levels in from 2 to 3 hours after initial 2-gram adult dose
- for economical around-the-clock coverage
- for maximum patient cooperation with easy-to-remember B.I.D. dosage

Basic Therapy **Gantanol[®]** (sulfamethoxazole) Tablets/Suspension (0.5 Gm) (0.5 Gm/teasp.)

hypoprothrombinemia and methemoglobinemia); *allergic* reactions (erythema multiforme, skin eruptions, epidermal necrolysis, serum sickness, pruritus, exfoliative dermatitis, anaphylactoid reactions, periorbital edema, conjunctival and scleral edema, photosensitization, arthralgia and allergic myocarditis); *gastrointestinal reactions* (nausea, emesis, abdominal pains, hepatic dysfunction, diarrhea, anorexia, pancreatitis and stomatitis); *CNS reactions* (headache, peripheral neuritis, mental depression, convulsions, hallucinations, tinnitus, vertigo and insomnia); *miscellaneous* reactions (drug fever, chills, toxic nephrosis with oliguria and interstitial nephritis, periarteritis nodosa and L.E. phenomenon). Due to certain structural similarities with some goitrogens, diuretics (acetazolamide, furosemide) and oral hypoglycemic agents, sulfonamides have been reported to cause rare instances of goiter production, diuresis and hypoglycemia as well as thyroid malignancies in rats following long-term administration. Cross-sensitivity with these agents may exist.

Dosage: Systemic sulfonamides are contraindicated in infants under 2 months of age (except adjunctively with pyrimethamine in congenital toxoplasmosis).

Usual adult dosage: 2 Gm (4 tabs or teasps.) initially, then 1 Gm b.i.d. or t.i.d. depending on severity of infection.

Usual child's dosage: 0.5 Gm (1 tab or teasps.)/20 lbs of body weight initially, then 0.25 Gm/20 lbs b.i.d. Maximum dose should not exceed 75 mg/kg/24 hrs.

Supplied: Tablets, 0.5 Gm sulfamethoxazole; Suspension, 0.5 Gm sulfamethoxazole/teaspoonful.



Roche Laboratories
Division of Hoffmann-La Roche Inc.
Nutley, N.J. 07110



Blue Cross and Blue Shield Utilization Review

Q.: What are individual physician fee profiles?

A.: *Individual physician fee profiles are computerized reports which identify a physician's usual charge for performing a particular service.*

Q.: How will Kentucky Blue Shield use individual physician fee profiles?

A.: *The Blue Shield Board of Directors has directed staff to develop and implement profiles in the administration of the Usual, Customary and Reasonable Program.*

Q.: Will profiles be of any additional benefit to physicians participating in the Usual, Customary and Reasonable Program?

A.: *Definitely yes. Through the use of individual physician fee profiles, physicians will know in advance what payment can be expected from Kentucky Blue Shield for covered services rendered to members with Usual, Customary and Reasonable benefits.*

Q.: How are individual physician fee profiles developed?

A.: *Profile statistics are derived from Blue Shield paid claims. When a claim is received in Blue Shield's office, the fee reported by the physician is stored in the computer, and used to develop that physician's individual fee profile. This places even more importance on physicians filing their USUAL fees when reporting services to Blue Shield.*

Q.: How will individual physician fee profiles be implemented?

A.: *It is anticipated that implementation of profiles in the administration of the Usual, Customary and Reasonable Program will require a personal contact with most physicians in Kentucky to arrive at an agreement on charges. Prior to this, Kentucky Blue Shield will contact selected physicians to discuss profiles, and will probably test the profile system with several groups of physicians who agree to participate in a pilot study of this nature.*

Q.: Is there a projected implementation date for fee profiles?

A.: *The target date for implementing individual physician fee profiles is projected for July 1, 1975. However, this date is flexible depending upon the problems encountered during the testing of the computer program, and the changes that have to be made as a result of the pilot studies with physicians.*

Q.: How is Kentucky Blue Shield working with the Kentucky Medical Association concerning individual physician profiles?

A.: *The Kentucky Medical Association Advisory Committee to Blue Cross and Blue Shield initially recommended the development of individual physician fee profiles, and that Committee's report to the 1974 House of Delegates further recommended that profiles be implemented. This report was adopted by your House, and Kentucky Blue Shield will continue to work very closely with your Advisory Committee during the implementation period.*

If questions arise regarding the Blue Cross and Blue Shield Utilization Review Program, please contact the Professional Relations Division, Blue Cross Hospital Plan, Inc., 3101 Bardstown Road, Louisville, Kentucky 40205, Phone (502) 452-1511.



What does man have in common with Samson?

Neither man nor the gorilla can synthesize vitamin C. Interestingly, the slow loris, a primate much further down the evolutionary scale, can convert L-1,4-gulonolactone to ascorbic acid in its liver and presumably does not require an exogenous source of ascorbic acid.

Because man can neither synthesize vitamin C nor store most of the water soluble vitamins, these nutrients must be replenished continuously in order to

maintain normal tissue levels.

Generally, this is accomplished in his daily diet. But under conditions of illness, stress, in convalescence or following surgery, vitamin stores may be depleted or metabolic demands increased.

In such cases, Surbex-T may be indicated. Surbex-T restores the water-soluble vitamins with each tablet providing 500 mg. of vitamin C plus high potency B-complex.



SURBEX-T[®] 500 mg. of Vitamin C with High Potency B-Complex
Restores what the body cannot effectively store

When diarrhea wrings the wedding belle...

It's all very well to counsel patience in diarrhea patients. There are times when relief of symptoms can't come too soon.

X-ray studies¹ in 16 normal subjects showed just how promptly the active ingredient in Lomotil does its work.

Lomotil retarded gastrointestinal motility particularly during the first three hours after administration. It continued its moderating action on the bowel for at least three hours more.

Physicians prescribe Lomotil more often than any other drug when the urgency for the control of diarrhea is most distressing.

1. Demeulenaere, L.: Action du R 1132 sur le transit gastro-intestinal, Acta Gastroent. Belg. 21:674-680 (Sept.-Oct.) 1958.



Lomotil[®]

TABLETS/LIQUID

Each tablet and each 5 ml. of liquid contain:
diphenoxylate hydrochloride . . . 2.5 mg.
(Warning: May be habit-forming)
atropine sulfate 0.025 mg.

Saves the Day



IMPORTANT INFORMATION: This is a Schedule V substance by Federal law; diphenoxylate is chemically related to meperidine. In case of overdose or individual hypersensitivity reactions similar to those after meperidine or morphine overdose may occur; treatment similar to that for meperidine or morphine intoxication (prolonged and careful monitoring). Respiratory depression may recur in spite of initial response to Nalline® (nalorphine) or may be evidenced as late as 30 hours after ingestion. LOMOTIL IS NOT AN INNOCUOUS DRUG AND DOSAGE RECOMMENDATIONS SHOULD BE STRICTLY ADHERED TO, ESPECIALLY IN CHILDREN. THIS MEDICATION SHOULD BE KEPT OUT OF REACH OF CHILDREN.

Uses: Lomotil is effective as adjunctive therapy in the management of diarrhea.

Indications: In children less than 2 years, due to decreased safety margin in younger age group and in patients who are jaundiced or hypersensitive to diphenoxylate HCl or atropine.

Warnings: Use with caution in young children, because of variable response, and with extreme caution in patients with cirrhosis and other advanced liver disease or abnormal liver function tests, because of possible hepatic coma. Diphenoxylate

HCl may potentiate the action of barbiturates, tranquilizers and alcohol. In theory, the concurrent use with monoamine oxidase inhibitors could precipitate hypertensive crisis.

Usage in pregnancy: Weigh the potential benefits against possible risks before using during pregnancy, lactation or in women of childbearing age. Diphenoxylate HCl and atropine are secreted in the breast milk of nursing mothers.

Precautions: Addiction (dependency) to diphenoxylate HCl is theoretically possible at high dosage. Do not exceed recommended dosages. Administer with caution to patients receiving addicting drugs or known to be addiction prone or having a history of drug abuse. The subtherapeutic amount of atropine is added to discourage deliberate overdose; strictly observe contraindications, warnings and precautions for atropine; use with caution in children since signs of atropinism may occur even with the recommended dosage.

Adverse reactions: Atropine effects include dryness of skin and mucous membranes, flushing and urinary retention. Other side effects with Lomotil include nausea, sedation, vomiting, swelling of the gums, abdominal discomfort, respiratory depression, numbness of the extremities, headache, dizziness, depression, malaise, drowsiness, coma, lethargy, anorexia, restlessness, euphoria, pruritus, angioneurotic edema, giant urticaria and paralytic ileus.

Dosage and administration: Lomotil is contraindicated in children less than 2 years old. Use only Lomotil liquid for children 2 to 12 years old. For

ages 2 to 5 years, 4 ml. (2 mg.) t.i.d.; 5 to 8 years, 4 ml. (2 mg.) q.i.d.; 8 to 12 years, 4 ml. (2 mg.) 5 times daily; adults, two tablets (5 mg.) t.i.d. to two tablets (5 mg.) q.i.d. or two regular teaspoonfuls (10 ml., 5 mg.) q.i.d. Maintenance dosage may be as low as one fourth of the initial dosage. Make downward dosage adjustment as soon as initial symptoms are controlled.

Overdose: Keep the medication out of the reach of children since accidental overdose may cause severe, even fatal, respiratory depression. Signs of overdose include flushing, lethargy or coma, hypotonic reflexes, nystagmus, pinpoint pupils, tachycardia and respiratory depression which may occur 12 to 30 hours after overdose. Evacuate stomach by lavage, establish a patent airway and, when necessary, assist respiration mechanically. Use a narcotic antagonist in severe respiratory depression. Observation should extend over at least 48 hours.

Dosage forms: Tablets, 2.5 mg. of diphenoxylate HCl with 0.025 mg. of atropine sulfate. Liquid, 2.5 mg. of diphenoxylate HCl and 0.025 mg. of atropine sulfate per 5 ml. A plastic dropper calibrated in increments of 1/2 ml. (total capacity, 2 ml.) accompanies each 2-oz. bottle of Lomotil liquid.

SEARLE

Searle & Co.
San Juan, Puerto Rico 00936

Address medical inquiries to:
G. D. Searle & Co.
Medical Department, Box 5110,
Chicago, Illinois 60680

Sign of a cold* sufferer

Time for Ornade®

Each Spansule® capsule contains 8 mg. Teldrin® (brand of chlorpheniramine maleate); 50 mg. phenylpropanolamine hydrochloride; 2.5 mg. isopropamide, as the iodide.

Fast relief of upper respiratory congestion and hypersecretion* with convenient b.i.d. dosage.

Before prescribing, see complete prescribing information in SK&F literature or PDR. The following is a brief summary.

* Indications

Based on a review of this drug by the National Academy of Sciences — National Research Council and/or other information, FDA has classified the indications as follows:

Possibly effective: For relief of upper respiratory tract congestion and hypersecretion associated with vasomotor rhinitis and allergic rhinitis, and for prolonged relief.

Lacking in substantial evidence of effectiveness: For relief of nasal congestion and hypersecretion associated with the common cold and sinusitis.

Final classification of the less-than-effective indications requires further investigation.

Contraindications: Hypersensitivity to any component; concurrent MAO inhibitor therapy; severe hypertension; bronchial asthma; coronary artery disease; stenosing peptic ulcer; pyloroduodenal or bladder neck obstruction. Children under 6.

Warnings: Caution patients about activities requiring alertness (e.g., operating vehicles or machinery). Warn patients of possible additive effects with alcohol and other CNS depressants.

Usage in Pregnancy: In pregnancy, nursing mothers and women who might bear children, weigh potential benefits against hazards. Inhibition of lactation may occur.

Effect on PBI Determination and I^{131} Uptake: Isopropamide iodide may alter PBI test results and will suppress I^{131} uptake. Substitute thyroid tests unaffected by exogenous iodides.

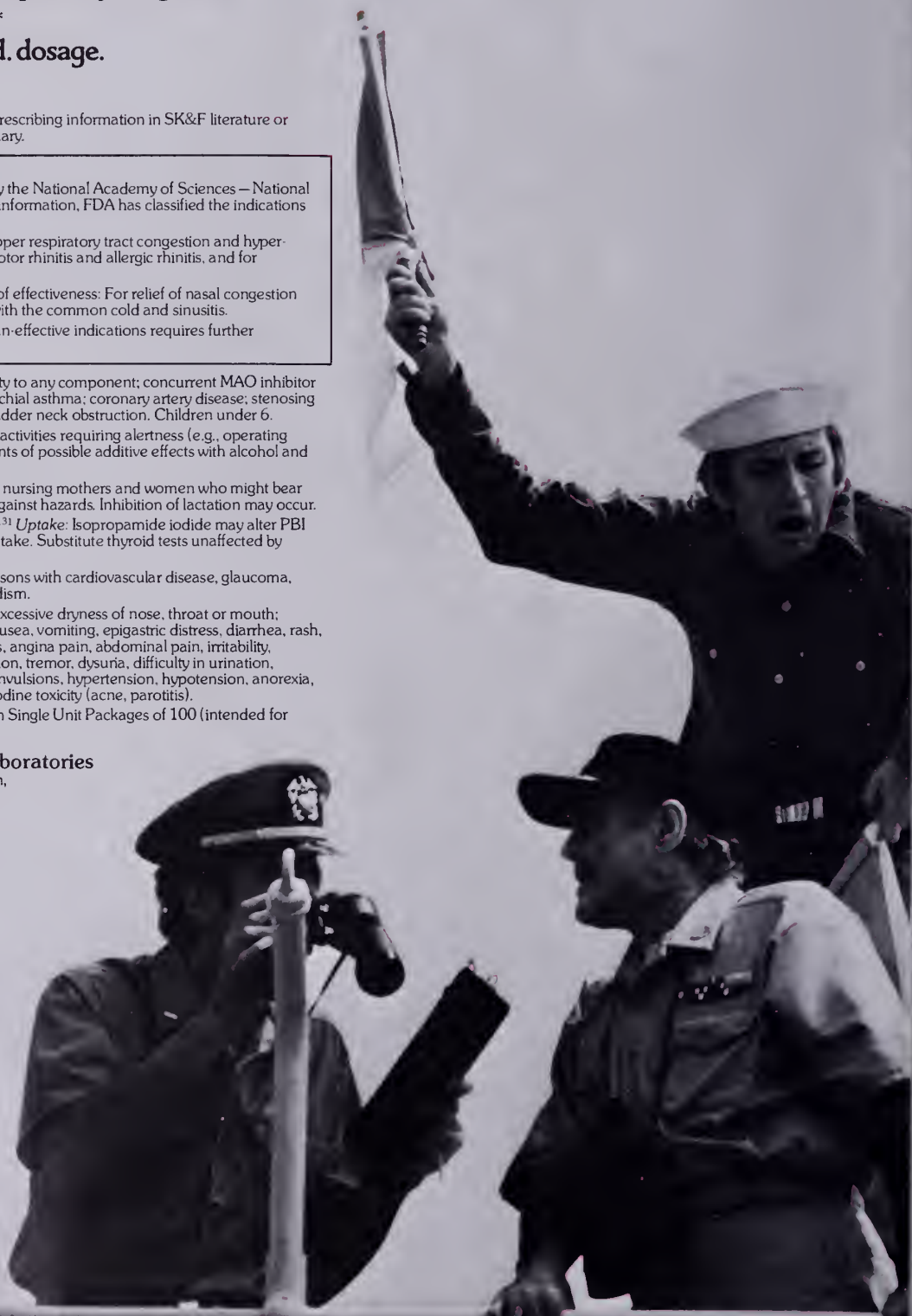
Precautions: Use cautiously in persons with cardiovascular disease, glaucoma, prostatic hypertrophy, hyperthyroidism.

Adverse Reactions: Drowsiness, excessive dryness of nose, throat or mouth; nervousness; or insomnia. Also, nausea, vomiting, epigastric distress, diarrhea, rash, dizziness, weakness, chest tightness, angina pain, abdominal pain, irritability, palpitation, headache, incoordination, tremor, dysuria, difficulty in urination, thrombocytopenia, leukopenia, convulsions, hypertension, hypotension, anorexia, constipation, visual disturbances, iodine toxicity (acne, parotitis).

Supplied: Bottles of 50 capsules; in Single Unit Packages of 100 (intended for institutional use only).

Smith Kline & French Laboratories

Division of SmithKline Corporation,
Philadelphia, Pa. 19101





ORGANIZATION SECTION



Drs. Hull, Makk Elected To Top KMA Offices

The KMA House of Delegates, meeting during the KMA Annual Meeting, elected David A. Hull, M.D., Lexington, to the office of President-Elect for the 1974-75 Associational year. Laszlo Makk, M.D., Louisville, was named Vice-President.

1974-75 KMA President Hoyt D. Gardner, M.D., Louisville, assumed office during the President's Luncheon on September 25. He succeeds Fred C. Rainey, M.D., Elizabethtown.



DOCTOR HULL



DOCTOR MAKK

Doctor Hull, a general surgeon, continues his active role in KMA, having been Vice-President (1969), Chairman of the Board of Trustees (1971), and Trustee of the 10th District (1971-74). He has served as President and Vice-President of the Fayette County Medical Society and, from 1972-74, was President of the Kentucky Foundation for Medical Care.

A pathologist and surgeon, Doctor Makk is the Director of Laboratories, Chief Pathologist, and Director of the School of Medical Technology at St. Anthony Hospital, Louisville. He is currently President-Elect of the medical staff of St. Anthony, and is a Fellow of the College of American Pathologists and the American Society of Clinical Pathologists.

Drs. Parks, Maxwell Assume Leadership of KMA Board

Paul J. Parks, M.D., Bowling Green, 6th District Trustee since 1969 and Vice-Chairman of the Board in 1974, was elected Chairman of the KMA Board of Trustees at the meeting of September 26. Doctor Parks, an internist, succeeds Ballard W. Cassady, M.D., Pikeville, in this office. Elected as Vice-Chairman was Edward N. Maxwell, M.D., Louisville.

Doctor Parks is a past president of the Madison County and Warren County medical societies, and is a past Chairman of the KMA Coordinating Commission on Governmental Medical Services.



DOCTOR PARKS



DOCTOR MAXWELL

Doctor Maxwell, a radiologist, has been a Trustee from the 5th District since 1972, and a KMA Delegate. A Scientific Exhibits Award Winner in 1965, he is a Fellow of the American College of Radiology and a past president of the Greater Louisville Radiology Society.

Newly-elected members of the Board of Trustees are: Frank R. Pitzer, M.D., Hopkinsville, 3rd District; Charles B. Spalding, M.D., Bardstown, 4th District; Richard J. Menke, M.D., Covington, 8th District; James B. Holloway, M.D., Lexington, 10th District; William T. Watkins, M.D., Somerset, 12th District; and Jerry D. Fraim, M.D., Paintsville, 14th District.

Re-elected for another three-year term is W. Eugene Sloan, M.D., Paducah, 1st District.

Auxiliary Installs Mrs. McElvein, Elects Mrs. Montgomery

The Woman's Auxiliary to KMA installed Mrs. Richard B. McElvein, Lexington, as President, and elected Mrs. Wally O. Montgomery, Paducah, to the office of President-Elect for the 1974-75 Associational year. Mrs. McElvein succeeds Mrs. William Pearson, Owensboro, who presided over the Annual Convention held concurrently with the KMA Annual Meeting, September 24-26 in Louisville.

Other newly-elected officers of the WA-KMA for this year included: Mrs. Robert Taylor, Elizabethtown, First Vice-President; Mrs. Frank L. Duncan, Monticello, Second Vice-President; Mrs. Edwin Davis, Paducah, Third Vice-President; Mrs. William Keller, Frankfort, Fourth Vice-President; Mrs. Charles N. Nicholson, Lexington, Treasurer; and Mrs. Robert Runge, Fort Thomas, Recording Secretary.

The primary goal of the Woman's Auxiliary is to assist KMA in its work for the advancement of health care in Kentucky. There are 26 organized auxiliaries with a membership of over 1200, and 100 members-at-large.

The Conference and Board Meeting of WA-KMA met on October 29-30 at Rough River State Park.

Dr. Van Meter, Hasty Riddle Honored by KMA

J. Farra Van Meter, M.D., Lexington, and Hasty W. Riddle, M.H.A., Louisville, received the 1974 KMA awards during the President's Luncheon, September 25, at the Annual Meeting. Richard F. Grise, M.D., Chairman of the Awards Committee, presented the Distinguished Service Award to Doctor Van Meter and the Kentucky Medical Association Award to Mr. Riddle.

Doctor Van Meter, a surgeon, has been an active member of KMA since 1925. He served as a Delegate from 1936-47, and as Vice-President and President of the Fayette County Medical Society in 1941-42. In addition to holding offices on the staffs of Good Samaritan and St. Joseph Hospitals, Doctor Van Meter was President of the Kentucky Division of the American Cancer Society in 1956, and in 1964 was appointed to the State Board of Health. He was made an emeritus member of KMA in 1973.

Mr. Riddle, honored for his accomplishments as a layman in the field of health care, has been Executive Vice President of the Kentucky Hospital Association since 1960. Involved in the development of Comprehensive Health Planning in Kentucky, he also serves as a member of the Kentucky Physicians' Mutual Board (Blue Shield) in Kentucky, the Southeastern Hospital Conference Board of Directors, the American Hospital Association Regional Advisory Board, and the American College of Hospital administrators. Mr. Riddle was instrumental in the passage of the Kentucky Certificate of Need legislation, and has worked closely with the Kentucky Medical Association in his several capacities to promote communication and cooperation among state health professionals.

1975 Nominating Committee Chosen by Delegates

Five physicians were elected to serve on the 1975 Nominating Committee by action of the KMA House of Delegates at its final annual session September 25. Committee members are: John M. Baird, M.D., Danville, Chairman; Keith M. Coverdale, M.D., Bowling Green; A. B. Richards, M.D., Louisa; James C. Salato, M.D., Columbia; and James C. Seabury, M.D., Paducah.

The Committee is responsible for presenting a slate of candidates for all elective offices within the structure of the Kentucky Medical Association to the House of Delegates at the 1975 Annual Meeting.

Construction began on the **University of Louisville Hospital Project** on October 24th. The \$51.8 million endeavor includes: a University teaching hospital; clinical faculty office tower and ambulatory care building; parking structure and institutional services building; and renovation of "K" building at the back of Louisville General Hospital.

Fine Words From Fine People— Guests Praise Annual Meeting

"The quality of the meeting was excellent in every respect. It is obvious how very much you have sacrificed over many years to the success of your organization. Without your sacrifices and your high sense of responsibility, I doubt that it could be done."

*William E. Gilmore, M.D.
President
West Virginia State
Medical Association
Parkersburg, W. Va.*

"I wish to express my sincerest appreciation for the outstanding hospitality shown my wife and myself on our recent visit to Louisville. I thoroughly enjoyed participating in the Annual Meeting of the Kentucky Medical Association, and greatly enjoyed the people we met."

*John E. Hoopes, M.D.
Professor of Plastic Surgery
Johns Hopkins University
School of Medicine
Baltimore, Maryland*

"I enjoyed participating in the Annual Meeting of the Kentucky Medical Association, and hope that in some small part, I helped to make your meeting a success."

*Donald G. Vidt, M.D.
Head, Clinical Section
Department of Hypertension
and Nephrology
Cleveland Clinic
Cleveland, Ohio*

"I want to thank you for Mrs. Samitz and myself for the many courtesies extended to us at the KMA Annual Meeting. It was a most pleasant visit and we certainly have fallen in love with the Bluegrass State."

*M. H. Samitz, M.D.
Professor and
Director of Graduate Dermatology
University of Pennsylvania
Philadelphia, Pennsylvania*

Arthur H. Keeney, M.D., Louisville, has been named to the AMA National Committee for Research in Ophthalmology and Blindness, and the AMA Joint Commission on Allied Health Personnel in Ophthalmology.

The U.S. Naval Reserve Medical Program in Louisville is enlisting members from among any former medical officer, medical service officer or nurse who served on active duty in the Navy or another service. The program provides task-performing units for phased mobilization during national emergencies or when otherwise authorized by law. Further details can be obtained from the Louisville Naval Reserve Center, 5401 Southside Drive, Louisville 40214, (502) 368-1405.

Summary Of Delegates' Actions On Reports And Resolutions For 1974 KMA Annual Meeting

The House of Delegates of KMA reviewed and took action on 41 reports and 26 resolutions submitted to them at this year's Annual Meeting September 24-26. Reference committees heard testimony on the reports and resolutions on Monday, September 23, and the House took final action on Wednesday, September 25. Some of the actions taken are as follows:

1) *Continuing Education Requirements*

The reference committee studied a resolution from the KMA Medical Education Committee regarding continuing education requirements for Kentucky physicians. The resolution stated that the KMA endorse and call upon staff to administratively establish a system for insuring systematic participation of all physicians in continuing education. Each physician is to be allotted a period of three years from July 1, 1975, to furnish evidence of compliance with the continuing education requirements of his specialty and provide continuing compliance after the initial three years. The resolution also addressed itself to the fact that the Kentucky Board of Medical Licensure should be requested to require by regulation satisfactory participation in continuing education for reregistration of license to practice medicine.

2) *Professional Standards Review Organization*

After lengthy discussion and several resolutions from various county medical societies and the KMA Board of Trustees, it was determined that KMA should reaffirm its previously stated policy regarding PSRO. The policy on PSRO was established at the 1973 KMA Annual Meeting in a substitute resolution adopted by the House which established a single, state-wide PSRO for Kentucky and also recognized that repeal or modification of PSRO legislation ultimately may be required to preserve high quality patient care.

3) *Chiropractic Involvement with Medicare*

The Board of Trustees introduced a resolution regarding the fact that Metropolitan Life Insurance Company has retained chiropractors in the review mechanism, and pointed out that, although this action is legal, it could possibly jeopardize the relationship of the physicians of Kentucky with Metropolitan. It was resolved that KMA petition Metropolitan to reconsider the use of chiropractors in the claims review system and instate scientifically accepted systems to reasonably process legitimate claims. Further, it was resolved that if these negotiations prove futile, the Board of Trustees would be empowered to inform the membership and advise all Kentucky physicians of actions regarding the Metropolitan Insurance Company. This resolution also states that all KMA members should be informed of the unalterable opposition of the House of Delegates to the inclusion of chiropractors in any review mechanism.

4) *Medicaid*

The KMA Board of Trustees introduced a resolution regarding the Medicaid Program in Kentucky, which set forth the problems which have been deeply ingrained in the Program regarding physicians who have participated in the Medicaid Program. The resolution points out that physician profiles have not been updated to bring them in line with normal medical charges or even with Medicare and other government medical programs. The resolution did point out that following many conferences with the Governor of the Commonwealth, he has shown interest by authorizing increased Medicaid funds from twelve to twenty million dollars during the next fiscal year. The resolution further pointed out that the Board of Trustees continues to urge physicians to participate in the Medicaid Program and stated that the Board will attempt to pursue the goal of full reimbursement of the usual, customary and reasonable charges within the structure of Medicaid in Kentucky.

5) *A Non-discovery Statute*

It was pointed out that during the 1974 General Assembly in Kentucky there had been a decision reached to attempt to have a non-discovery statute introduced in the Kentucky House of Representatives. The Jefferson County Medical Society, in its resolution, requested that the House of Delegates instruct the KMA Legislative Committee to begin at once to work with allied groups to plan for the introduction and passage of a Non-discovery statute of quality review minutes, records, testimony and proceedings at the next session of the Kentucky General Assembly.

6) *Other Matters*

Some of the other matters taken up included acceptance of students, interns and residents as voting members of the House of Delegates; set in motion revision of the Legislative Activities Committee so that there would be separate and distinct committees for both national and state legislative matters; recommended passage of a resolution from Campbell-Kenton County Medical Society regarding HMO's and private insurance coverage; recommended that the portion of the report of the Chairman of the Board of Trustees dealing with the Ad Hoc Committee on Mental Health-Mental Retardation be made available to all county medical societies, with the request that the societies distribute such report to comprehensive care center board members in their area.

This is a very brief summary of a few of the actions taken during the 1974 Annual Meeting. As in the past, all reports and resolutions acted upon by the House of Delegates will be published in their entirety in the December issue of the *Journal of KMA*.

**Was Your Delegate Present?
ROLL CALL —
1974 House of Delegates
KMA Annual Meeting**

OFFICERS

Speaker	Richard F. Greathouse	Present	Present
Vice-Speaker	Carl Cooper, Jr.	Present	Present
President	Fred C. Rainey	Present	Present
President-Elect	Hoyt D. Gardner	Present	Present
Vice-President	Gabe A. Payne	Present	Present
Secretary	S. Randolph Scheen	Present	Present
Treasurer	Keith P. Smith	Present	Present
Delegate to AMA	J. Thomas Giannini	Present	Present
Delegate to AMA	John C. Quertnerous	Present	.....
Delegate to AMA	David B. Stevens	Present	Present
Alternate Delegate to AMA	Charles G. Bryant	Present	Present
Alternate Delegate to AMA	William W. Hall	Present	Present
Alternate Delegate to AMA	Thomas L. Heavern, Jr.	Present	Present
Parliamentarian	Ben L. Crowder	Present	Present

TRUSTEES

District			
First	W. Eugene Sloan	Present	Present
Second	Charles C. Kissinger	Present	Present
Third	Ralph L. Cash	.....	.....
Fourth	W. Bruce Hamilton	Present	.....
Fifth	Edward N. Maxwell	Present	Present
Sixth	Paul J. Parks	Present	Present
Seventh	John P. Stewart	Present	Present
Eighth	Carl J. Brueggemann	Present	Present
Ninth	James L. Ferrell	.....	Present
Tenth	David A. Hull	Present	Present
Eleventh	R. Eugene Bowling	Present	Present
Twelfth	Robert N. McLeod, Jr.	Present	.....
Thirteenth	J. Wesley Johnson	.....	Present
Fourteenth	Ballard W. Cassidy	Present	Present
Fifteenth	Harold L. Bushey	Present	Present

ALTERNATE TRUSTEES

District			
First	Keith E. Ellis	Present	Present
Second	Kenneth M. Eblen	Present	Present
Third	Edwin R. Davis	.....	.....
Fourth	Emmett W. Wood	Present	Present
Fifth	Lloyd G. Yopp	Present	Present
Sixth	Carlisle V. Dodson	Present	.....
Seventh	William H. Heller	.....	.....
Eighth	Robert C. Smith	Present	Present
Ninth	Don R. Stephens	Present	Present
Tenth		.....	.....
Eleventh	Joseph M. Bush	.....	.....
Twelfth	Paul J. Sides	.....	.....
Thirteenth	Arthur B. Richards	Present	Present
Fourteenth	Jerry D. Fraim	Present	Present
Fifteenth	Walter H. Stepchuck	.....	.....

PAST PRESIDENTS

Past	President	Lee C. Hess	Present	Present
Past	President	John S. Harter	Present	Present
Past	President	John C. Quentermours	Present	.....
Past	President	Walter L. Cawood	Present	.....
Past	President	Henry B. Asman	Present	Present

DELEGATES

First District

		First Session	Second Session
BALLARD			
CALLOWAY	R. Gary Marquardt	Present	Present
CARLISLE			
FULTON	G. F. Bushart	Present	Present
GRAVES	C. Douglas LeNeave	Present	.....
HICKMAN	C. J. Mills	.....	.....
LIVINGSTON	Stephen Burkhardt	.....	.....
McCRACKEN	Charles H. Bohle	Present	Present
	Wm. E. Jackson (Alt.)	Present	Present
	Wally Montgomery	Present	Present
MARSHALL	Keith Ellis	Present	Present

Second District

DAVIESS	James H. Callis	Présent	Present
	Glen Richards	Present	Present
HANCOCK	Marilyn S. Sanders	Present	Present
HENDERSON	Kenneth Eblen	Present	Present
	John McClellan	.....	Present
McLEAN	E. S. Coleman	.....	.....
OHIO	Robert E. Norsworthy	Present	Present
UNION	Darrel L. Vaughn	.....	Present
WEBSTER			

Third District

CRITTENDEN	R. M. Brandon	.....	.....
HOPKINS	James Gullett	Present	Present
	Wallace R. Alexander	Present	Present
LYON	Mort H. Moseley	.....	.....
PENNYRILE MULTI-COUNTY SOCIETY			
CALDWELL	Nathaniel H. Talley	Present	Present
CHRISTIAN	Frank Pitzer	Present	Present
	Carl B. Caplinger	.....	Present
	Delmas Clardy (Alt.)	Present	.....
MUHLENBERG	Gary Givens	Present	Present
TODD	Henry R. Bell	Present	Present
TRIGG	William N. Richardson	Present	Present

Fourth District

BRECKINRIDGE	William D. Hatfield	.....	.....
BULLITT	J. W. Roney	.....	Present
GRAYSON	Victor F. Duvall	Present	Present
GREEN	William L. Shuffett	Present	Present
HARDIN	Terrell D. Mays	Present	Present
	Thomas Ferriell, Jr.	.....	Present
HART	Keene M. Hill	Present	Present
LARUE			
MARION			
MEADE			
NELSON	Charles B. Spalding	Present	Present
TAYLOR	Forest F. Shely	Present	Present
WASHINGTON			

Fifth District

JEFFERSON	John D. Allen	Present	Present
	Joseph C. Babey	.....	Present
	McHenry S. Brewer	Present	Present
	Glenn W. Bryant	Present	Present
	Peter C. Campbell, Jr.	Present	Present
	W. Neville Caudill	Present	Present
	Samuel H. Cheng	Present	Present
	Normal G. Collier	.....	.....
	Charles E. Dobbs	.....	Present
	John H. Doyle	Present	Present
	Rudy J. Ellis	.....	.....
	Will S. Foster	.....	.....
	Darius Ghazi	.....	Present
	John N. Hafner	.....	Present
	Edward Haick	.....	Present
	Harold D. Haller, Sr.	Present	Present
	R. Brooks Howard	Present	Present
	Arthur H. Keeney	Present	Present
	Laszlo Makk	Present	Present
	Robert L. McClendon	Present	Present
	Clyde T. Moore	Present	Present
	Charles R. Oberst	.....	Present
	William J. Oliver	.....	Present
	C. Kenneth Peters	.....	Present
	Anne C. D. Richman	.....	Present
	R. Parnell Rollings	Present	Present
	W. Fielding Rubel	Present	Present
	Robert P. Schiavone	Present	Present
	Robert M. Senese	.....	Present
	Charles B. Severs	.....	Present
	David C. Shipp	.....	Present
	Charles Smith (Alt.)	.....	Present
	David L. Stewart	Present	Present
	Walter L. Thompson	.....	Present
	Robert S. Tillett	Present	Present
	Lloyd G. Yopp	Present	Present

Sixth District

ADAIR	James C. Salato	Present	Present
ALLEN	Earl P. Oliver	Present	Present
BARREN	Daryl P. Harvey	Present	Present
BUTLER	Richard T. C. Wan	.....	.....
CUMBERLAND	Joseph Schickel	.....	Present
EDMONSON	Sidney E. Farmer	.....	.....
LOGAN	C. V. Dodson	Present	.....
	Lewis Martin (Alt.)	.....	Present
METCALFE	L. P. Emberton	.....	.....
MONROE	James E. Carter	.....	.....
SIMPSON	J. Michael Pulliam	Present	Present
WARREN	Keith Coverdale	Present	Present
	Nelson B. Rue	Present	Present
	Gerald E. Sullivan	Present	Present

Seventh District

ANDERSON	H. Boyd Caudill	.....	.....
CARROLL	Cecil Martin	Present	Present
FRANKLIN	J. Myron Lord	Present	Present
	W. Snyder, Jr.	Present	.....
GALLATIN	John D. Fielding	Present	.....
GRANT	Laurence M. Quill	Present	Present
HENRY	Wyatt Norvell	Present	Present
OLDHAM	E. G. Houchin	Present	Present
OWEN	Maurice Bowling	.....	.....
SHELBY	Willis P. McKee	.....	Present
SPENCER	W. K. Skaggs	.....	.....
TRIMBLE	Carl Cooper, Jr.	Present	Present

Eighth District

BOONE	William R. Yates	Present	Present
CAMPBELL-	Joseph G. Braun	.....	Present
KENTON	Howard Heringer, Jr.	Present	Present
	Paul Klingenberg	Present	Present
	Robert C. Smith (Alt.)	Present	.....
	Robert E. Smith	Present	Present

	Fred C. Stine	Present	Present
	Jerry C. Sutkamp	Present	Present
	R. J. Timmerman	Present	Present
Ninth District			
BATH	Robert A. Byron	.....	.....
BOURBON	Harry L. Galloway	.....	Present
BRACKEN	J. M. Stevenson	Present	Present
FLEMING	R. W. Fidler	Present	Present
HARRISON	Don R. Stephens	Present	Present
MASON	Harry C. Denham	Present	Present
NICHOLAS	Andrew R. Hamon	.....	.....
PENDLETON	William Townsend	.....	Present
ROBERTSON			
SCOTT	R. Kendall Brown	Present	Present
Tenth District			
FAYETTE	Leslie W. Blakey	Present	Present
	M. Cary Blaydes	Present	Present
	Peter P. Bosomworth	Present	Present
	Thomson R. Bryant, Jr.	Present	Present
	Colby N. Cowherd	Present	Present
	Glenn U. Dorroh	Present	Present
	Richard D. Floyd	Present	Present
	Ward O. Griffen	.....	Present
	Allen E. Grimes, Jr.	Present	Present
	Richard F. Hench	Present	Present
	C. Nicholas Kavanaugh	Present	Present
	Richard B. McElvein	Present	Present
	Carl H. Scott	Present	Present
	John M. Stoeckinger	Present	Present
	John E. Trevey	Present	Present
	James G. Wilhite	Present	Present
JESSAMINE	J. Sankey Williams	Present	Present
WOODFORD	William J. Graul	Present	.....
Eleventh District			
CLARK			
ESTILL			
JACKSON	Donald L. Peterson	.....	.....
LEE	Arnold L. Taulbee	Present	.....
MADISON	Don E. Cloys	Present	Present
	Linda S. Fagan	Present	Present
MENIFEE			
MONTGOMERY	William McKenna	Present	Present
OWSLEY	Mildred B. Gabbard	.....	.....
POWELL	Charles Noss	.....	.....
WOLFE	Paul F. Maddox	.....	.....
Twelfth District			
BOYLE	John M. Baird	Present	Present
CASEY	Garnett J. Sweeney	Present	.....
CLINTON	Floyd B. Hay	Present	Present
GARRARD	B. Glenn Hicks	.....	Present
LINCOLN			
McCREARY	Hoover A. Perry	.....	.....
MERCER	E. H. John	.....	.....
PULASKI	Danny Clark	Present	Present
	Veryl Frye	.....	Present
ROCKCASTLE			
RUSSELL	James E. Monin	.....	.....
WAYNE			
Thirteenth District			
BOYD	Larry B. Craycraft	Present	Present
	J. E. Moore	Present	Present
	Garner E. Robinson	Present	Present
CARTER			
ELLIOTT			
GREENUP	Thomas E. Stevens	Present	Present
LAWRENCE	A. B. Richards	Present	.....
LEWIS			
MORGAN	Alec Spencer	.....	Present
ROWAN	Patrick J. Serey	Present	Present
Fourteenth District			
BREATHITT	Robert E. Cornett	.....	.....
FLOYD	W. Grady Stumbo	Present	Present
JOHNSON	Franklin K. Belhasen	Present	Present
KNOTT	Gene T. Watts	.....	Present
LETCHER	James B. Tolliver	Present	Present
MAGOFFIN			
MARTIN	Raymond D. Wells	Present	.....
PERRY	Keith Cameron	.....	.....
PIKE	Max P. Jones	Present	.....
	Harvey Page (Alt.)	.....	Present
	James B. Zimmerman	Present	Present
Fifteenth District			
BELL	Francis Forde	Present	Present
	Emanuel Rader	Present	Present
CLAY	William E. Becknell	Present	Present
HARLAN	R. Smith Howard	Present	.....
	Loyal K. Wilson	Present	Present
KNOX	Rogelio A. Acosta	.....	.....
	(Alt.)	.....	Present
LAUREL	Rufino Crisostomo	Present	.....
LESLIE	Ed Lauber	.....	Present
WHITLEY	Frank Lepreau	Present	.....
	R. D. Pitman	Present	Present

The information in the Roll Call was taken from the attendance record cards signed by the delegates prior to the meetings of the House, September 23 and 25.

Preschool Immunization Campaign Urged Nationwide

KMA, the Kentucky Department for Human Resources, AMA, and numerous other agencies are joining in a nationwide campaign to raise the immunization level of pre-school children. The objective is to immunize a minimum of 90% of the estimated 5 million susceptible children between the ages of 1 and 4 against polio, measles, rubella, diphtheria, tetanus and whooping cough by the time they enter first grade.

KMA officials are encouraging all physicians to initiate an ongoing audit of patient records and parents should be encouraged to determine the immunization status of their children.

Ada R. Gaskill, M.D., is the new Chief of Medical Services for the Green River Comprehensive Care Center, Owensboro. Doctor Gaskill has been a general practitioner for 20 years in Des Moines, Iowa.

STATEMENT OF OWNERSHIP MANAGEMENT AND CIRCULATION

(Act of August 12, 1970; Section 3685,
Title 39, United States Code)

- Title of Publication: The JOURNAL OF THE KENTUCKY MEDICAL ASSOCIATION.
- Date of filing: October 1, 1974.
- Frequency of issue: Monthly.
- Location of known office of publication: 3532 Ephraim McDowell Drive, Louisville, Jefferson County, Kentucky 40205.
- Location of the headquarters or general offices of the publishers: 3532 Ephraim McDowell Drive, Louisville, Kentucky 40205.
- Names and addresses of publisher, editor, and managing editor: Publisher—Kentucky Medical Association, 3532 Ephraim McDowell Drive, Louisville, Kentucky 40205. Editor—Walter I. Hume, Jr., M.D., 768 Medical Towers South, Louisville, Kentucky 40202. Managing Editor—Robert G. Cox, 3532 Ephraim McDowell Drive, Louisville, Kentucky 40205.
- Owner: Kentucky Medical Association, 3532 Ephraim McDowell Drive, Louisville, Kentucky 40205.
- Known bondholders, mortgagees, and other security holders owning or holding 1 percent or more of total amount of bonds, mortgages or other securities: Citizens Fidelity Bank and Trust Company, P.O. Box 1140, Louisville, Kentucky 40201.
- Nonprofit organizations authorized to mail at special rates: The purpose, function, and nonprofit status of this organization and the exempt status for Federal income tax purposes have not changed during the preceeding 12 months.
- Extent and nature of circulation:

	Average no. copies each issue during preceeding 12 months	Single issue published nearest to filing date
A. Total no. copies printed:	3431	3450
B. Paid circulation:		
1. Sales through dealers and carriers, street vendors and counter sales:	0	0
2. Mail subscriptions:	3103	3110
C. Total paid circulation:	3103	3110
D. Free distribution by mail, carrier or other means:		
1. Samples, complimentary, and other free copies:	285	305
2. Copies distributed to news agents but not sold:	0	0
E. Total distribution	3388	3415
F. Office use, left-over, unaccounted, spoiled after printing:	43	35
G. Total:	3431	3450

I certify that the statements made by me above are correct and complete. Robert G. Cox, Managing Editor.

COMPARATIVE REGISTRATION FIGURES

KMA Annual Meetings

	Louisville 1965	Louisville 1966	Louisville 1967	Louisville 1968	Louisville 1969	Louisville 1970	Louisville 1971	Louisville 1972	Louisville 1973	Louisville 1974
KMA Members	1172	1016	957	1009	1056	1013	1186	940	929	918
Guest Physicians	138	195	152	153	149	130	149	142	138	116
Interns-Residents	132	121	94	103	95	101	70	119	103	81
Medical Students	193	209	222	185	218	245	233	234	234	150
Registered Nurses	27	33	24	42	27	48	30	41	61	38
Exhibitors	297	312	272	256	305	280	269	241	240	251
Guests	172	126	115	324	339	379	356	364	405	335
Technicians —										
Office Assistants	55	46	31	29	39	32	36	34	30	31
TOTAL ATTENDANCE	2186	2058	1867	2111	2228	2228	2329	2115	2140	1920

In Memoriam

GEORGE M. ASHER, JR., M.D.
Pineville
1906-1974

George M. Asher, Jr., M.D., a general practitioner with a special interest in surgery, died September 24 at the age of 67. Doctor Asher graduated from the University of Louisville School of Medicine in 1933. He was a member of the Kentucky Medical Association and the Bell County Medical Society.

THOMAS T. BRACKIN, JR., M.D.
Bardwell
1915-1974

Thomas T. Brackin, Jr., M.D., 58, died July 31. A 1944 graduate of the University of Tennessee College of Medicine, Doctor Brackin was a general practitioner. He was a member of the Kentucky Medical Association and the Carlisle County Medical Society.

MARVIN A. LUCAS, M.D.
Louisville
1909-1974

Marvin A. Lucas, M.D., died September 28 at the age of 65. Doctor Lucas, a proctologist, graduated from the University of Louisville School of Medicine in 1936. He was a member of the Kentucky Medical Association, the American Medical Association, and the Jefferson County Medical Society.

INTERNIST or Board Certified Family Practitioner

Tired of long hours? Want to spend more time with your family, and still practice high-quality medicine? University of Kentucky Student Health Service is looking for conscientious clinicians, dedicated to top quality patient care. Faculty appointment, teaching, excellent fringe benefits. Contact **Robert E. French, M.D., Annex 4, University of Kentucky Medical Center, Lexington, Kentucky (606) 233-6471.**

"Feeling Good", a new TV series on health for adults from the makers of "Sesame Street", will be aired on local PBS stations beginning November 20. Some 300 health experts developed the 11 topics of the series, to include the health care delivery system, child care and mental health.

2 FULL-TIME PHYSICIANS

Pending retirement of two full-time physicians creates a need for two internists, surgeons, or family practitioners to deliver primary occupational health care in two Cincinnati locations. Industrial practice experience is desirable, but not a prerequisite. You would be joining a company noted for its stability and advanced industrial medical practices and would be eligible for the program of employee benefits, ranking among the top 5% of all U.S. Companies, including profit sharing, and low cost insurance. To investigate these opportunities, send resume and salary requirement to:

Box 101, Journal of KMA
An Equal Opportunity Employer

CORRECTIONS

Drug Blood Concentrations and Doses. — In the article, "Neurotoxic Reactions To Local Anesthetic Drugs," published in the October issue (10:543-547), the following measurements were incorrect:

Page 544, right column, 1st paragraph, 9th line should read "10 $\mu\text{g/ml}$," instead of "10 mg/ml ."

Page 544, right column, 3rd paragraph, 8th line should read "5-10 $\mu\text{g/ml}$," instead of "5-10 mg/ml ."

Page 547, left column, 3rd paragraph, 4th line should read "0.1 mg/kg ," instead of "1 mg/kg ."



EYES RIGHT!

...to SOUTHERN OPTICAL

LOUISVILLE Southern Optical Bldg. — 640 River City Mall
Contact Lenses — 640 River City Mall
Medical Towers Bldg., Floyd & Gray
Doctors Office Bldg., Liberty at Floyd
Medical Arts Bldg., 1169 Eastern Parkway
Professional Bldg. East, 3101 Breckinridge Lane
Medix Bldg. — Adj. S.S. Mary & Elizabeth Hosp.

ST. MATTHEWS 313 Wallace Center and 108 McArthur Drive

NEW ALBANY Professional Arts Bldg., 1919 State Street

BOWLING GREEN 524 East Main Street

OWENSBORO Doctors Bldg., 1001 Center Street



*Southern
Optical*

CHARGE ACCOUNTS
INVITED
BankAmericard
Master Charge

Urgently desired the following items to re-furnish a Civil War Physician's Office and Waiting Room: a small rolltop desk with a brass base or other light and physician's chair, glass-faced medicine cabinet, glass-faced instrument cabinet, old medical jars of that era, medical chest (small) with drawers for tablets, pills, etc., non-metal tub for Sitz Baths, old chairs, curtains, scales, rag carpeting or rugs, old saddle bag, old lights for office and waiting room, old patient's chairs and settee, two old "Shaker" stoves about three feet tall and wood burning of cast iron, old stethoscope, old brass microscope, etc. Any suggestions will be greatly appreciated. The Academy of Medicine of Cincinnati believes this offers us a unique opportunity to present all visiting groups to this historic village which will reflect medicine's interest. Please address all responses to Clyde S. Roof, M.D., Chairman, Committee on History, Academy of Medicine of Cincinnati, 320 Broadway, Cincinnati, Ohio 45202.

PEDIATRICIAN

Opportunity to gain valuable and interesting experience. Employment in a wide-range program for maternal child care and crippled children's services for the Kentucky Human Resources Department.

Must be licensed to practice medicine in Kentucky. Must be board eligible, prefer board certified.

Salary negotiable; liberal fringe benefits.

Write: Patricia K. Nicol, M.D.
Manager, Growth & Dev. Branch
Room 257
275 East Main Street
Frankfort, Kentucky

Or Call: 502-564-4830

An Equal Opportunity Employer M/F

Breast Cancer: earlier warning system

Futility and frustration beset the physician confronted with breast cancer. For the last 35 years, the survival rate has not significantly changed despite intensive educational programs aimed at earlier detection, and improvement in treatment techniques.

What is the outlook? We know the key to reducing mortality from breast cancer is in the *earliest possible* diagnosis. The stage at which breast cancer is detected is *crucial* to the outcome of treatment. By the time a lump is discovered through BSE or clinical examination, critical time may have been lost.

And we *do* have the means to achieve earlier diagnosis. We do have an *earlier* warning system. Mammography and thermography can detect breast cancer *before* a lump is discernible by palpation. To demonstrate that it is practical and feasible to detect breast cancer earlier by using these modalities, the American Cancer Society and the National Cancer Institute are funding a network of breast cancer demonstration projects. Supported by grants of \$2-million from

the ACS and \$4-million from the 20 such centers are expected to be operative across the country by the end of the year. Each will screen at no charge approximately 5,000 women annually in what is considered to be the ideal detection program—to include clinical examination, mammography and thermography.



Mammography



Thermography

Each of these detection methods contributes independently to the detection of breast cancer, and none can be dispensed with in the search for early disease.

At present we cannot prevent breast cancer, but the potential for saving millions of lives is immense. The five-year survival rate surges dramatically from 53% when axillary nodes are positive, to approximately 85% when the disease is localized, to nearly

100% for in-situ cancer.

We have an earlier warning system. Let's use it.

 **american cancer society**

Before prescribing, please consult complete product information, a summary of which follows:

Indications: Relief of anxiety and tension occurring alone or accompanying other disease states.

Contraindications: Patients with known hypersensitivity to the drug.

Warnings: Caution patients about possible combined effects with alcohol and other CNS depressants. As with all sedating drugs, caution patients about hazardous occupations requiring complete mental alertness (e.g., operating machinery, driving). Though physical and psychological dependence have not been reported on recommended dosages, use caution in administering to addiction-prone individuals or those who may increase dosage; withdrawal symptoms (including convulsions), following discontinuation of the drug and similar to those seen with barbiturates, have been reported. Use of any drug in pregnancy, lactation, or in women of childbearing age requires that its potential benefits be weighed against its possible hazards.

Precautions: In the elderly and debilitated, and in children over six, limit to the least effective dosage (initially 10 mg or less per day) to preclude ataxia or sedation, increasing gradually as tolerated. Not recommended in children under six. Though generally recommended, if combination therapy with other psychotropics seems indicated, fully consider individual pharmacologic effects, particularly in use of potent drugs such as MAO inhibitors and phenothiazines. Observe usual precautions in presence of impaired renal or hepatic function. Paradoxical reactions (e.g., excitement, stimulation and rage) have been reported in psychiatric patients and hyperactive aggressive children. Employ usual precautions in treatment of anxiety states with evidence of impending depression; suicidal tendencies may be present and protective measures necessary. Variable effects on blood coagulation have been reported very rarely in patients receiving the drug and oral anticoagulants; causal relationship has not been established clinically.

Adverse Reactions: Drowsiness, dizziness and confusion may occur, espe-



cially in the elderly and debilitated. These are reversible in most instances by proper dosage adjustment, but are also occasionally observed at the lower dosage ranges. In a few instances syncope has been reported. Also encountered are isolated instances of skin eruptions, edema, minor menstrual irregularities, nausea and constipation, extrapyramidal symptoms, increased and decreased libido—all infrequent and generally controlled with dosage reduction; changes in EEG patterns (low-voltage fast activity) may appear during and after treatment; blood dyscrasias (including agranulocytosis), jaundice and hepatic dysfunction have been reported occasionally, making periodic blood counts and liver function tests

advisable during protracted therapy.

Usual Daily Dosage: Individualize for maximum beneficial effects. *Oral—Adults:* Mild and moderate anxiety and tension, 5 or 10 mg *t.i.d.* or *q.i.d.*; severe states, 20 or 25 mg *t.i.d.* or *q.i.d.* *Geriatric patients:* 5 mg *b.i.d.* to *q.i.d.* (See Precautions.)

Supplied: Librium® (chlordiazepoxide HCl) *Capsules*, 5 mg, 10 mg and 25 mg—bottles of 100 and 500; Tel-E-Dose® packages of 100. Libritabs® (chlordiazepoxide) *Tablets*, 5 mg, 10 mg and 25 mg—bottles of 100 and 500. With respect to clinical activity, capsules and tablets are indistinguishable.



Roche Laboratories
Division of Hoffmann-La Roche Inc.
Nutley, N.J. 07110

to help reduce clinically significant anxiety and
thereby help improve patient receptivity

Librium® up to 100 mg daily in
severe anxiety
(chlordiazepoxide HCl)

Please see following page.



Symptom of excessive anxiety:

The patient may have difficulty in accepting medical counsel.

Clinical experience has shown that some unduly anxious patients may tend to deny or minimize their illness and therefore resist seeking

or following medical advice. Through its antianxiety action, adjunctive Librium (chlordiazepoxide HCl) can often calm the emotionally tense pa-

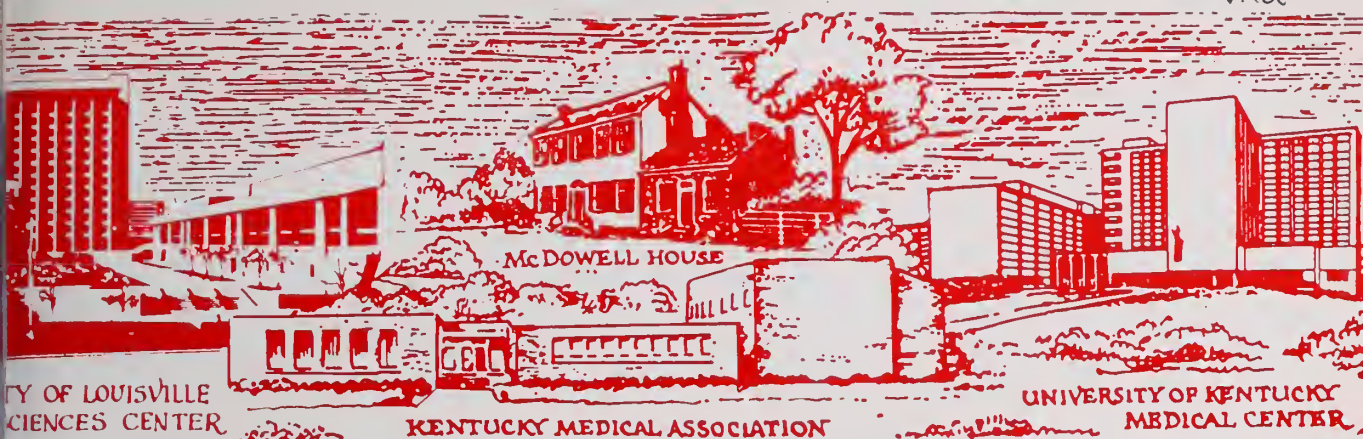
tient, thereby encouraging phy patient rapport and, on occasio making it easier for the patient accept medical counsel.

Please see reverse side
for summary of product information.

for relief of excessive anxiety

Librium[®] 10 mg capsule
(chlordiazepoxide HCl)

ROCHE



The Journal of The KENTUCKY Medical Association Season's Greetings

Ampicillin-Resistant *Hemophilus Influenzae*: Complacency Ends

Garrett Adams, M.D.

655

The Primary Hyperlipoproteinemias

David E. Bybee, M.D. and Ronald D. Hamilton, M.D.

658

Digest of Proceedings, 1974 House of Delegates

680

Index to Volume 72

756

Complete Contents on Page 643

Both after



Predominant
psychoneurotic
anxiety

Associated
depressive
symptoms

Before prescribing, please consult complete product information, a summary of which follows:

Indications: Tension and anxiety states; somatic complaints which are concomitants of emotional factors; psychoneurotic states manifested by tension, anxiety, apprehension, fatigue, depressive symptoms or agitation; symptomatic relief of acute agitation, tremor, delirium tremens and hallucinosis due to acute alcohol withdrawal; adjunctively in skeletal muscle spasm due to reflex spasm to local pathology, spasticity caused by upper motor

neuron disorders, athetosis, stiff-man syndrome, convulsive disorders (not for sole therapy).

Contraindicated: Known hypersensitivity to the drug. Children under 6 months of age. Acute narrow angle glaucoma; may be used in patients with open angle glaucoma who are receiving appropriate therapy.

Warnings: Not of value in psychotic patients. Caution against hazardous occupations requiring complete mental alertness. When used adjunctively in convulsive dis-

orders, possibility of increase in frequency and/or severity of grand mal seizures require increased dosage of standard convulsant medication; abrupt withdrawal may be associated with temporary increase in frequency and/or severity of seizures. Advise against simultaneous ingestion of alcohol and other CNS depressants. Withdrawal symptoms (similar to those with barbiturates and alcohol) occurred following abrupt discontinuation (convulsions, tremor, abdominal cramps, vomiting and sweating). Use with caution in addiction-prone individuals under c

Respond to one

According to her major symptoms, she is a psychoneurotic patient with severe anxiety. But according to the solution she gives of her symptoms, part of the problem is like depression. Because her problem, although primarily one of excessive anxiety, is often accompanied by depressive symptoms. Valium (diazepam) provides relief for both—as excessive anxiety is relieved, the depressive symptoms associated with it are also relieved.

There are other advantages in using Valium for the treatment of psychoneurotic anxiety with secondary depressive symptoms: the therapeutic effect of Valium is pronounced and immediate. This means that improvement is usually apparent in the patient within a few days rather than in a week or

two, although it may take longer in some patients. In addition, Valium (diazepam) is generally well tolerated; as with most CNS-acting agents, caution patients against hazardous occupations requiring complete mental alertness.

Also, because the psychoneurotic patient's symptoms are often intensified at bedtime, Valium can offer an additional benefit. An *h.s.* dose added to the *b.i.d.* or *t.i.d.* treatment regimen can relieve the excessive anxiety and associated depressive symptoms and thus encourage a more restful night's sleep.

For further information on this subject, the following references are provided:

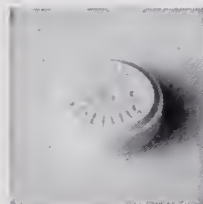
1. Henry BW, *et al*: *Dis Nerv Syst* 30:675-679, Oct 1969.
2. Hollister LE, *et al*: *Arch Gen Psychiatry* 24:273-278, Mar 1971.
3. Claghorn J: *Psychosomatics* 11:438-441, Sept-Oct 1970.

ance because of their predisposition to habituation and dependence. In pregnancy, lactation or women of childbearing age, weigh potential benefit against possible hazard.

Interactions: If combined with other psychotropics or anticonvulsants, consider the pharmacology of agents employed. Drugs such as phenothiazines, barbiturates, MAO inhibitors, and antidepressants may potentiate Valium. Usual precautions indicated in severely depressed, or with latent suicidal tendencies.

Observe usual precautions in impaired renal or hepatic function. Limit dosage to smallest effective amount in elderly and debilitated to preclude ataxia or oversedation.

Side Effects: Drowsiness, confusion, diplopia, hypotension, changes in libido, nausea, fatigue, depression, dysarthria, jaundice, skin rash, ataxia, constipation, headache, incontinence, changes in salivation, slurred speech, tremor, vertigo, urinary retention, blurred vision. Paradoxical reactions such as acute hyperexcited states, anxiety, hallucinations, increased muscle



Valium[®] (diazepam)

2-mg, 5-mg, 10-mg tablets

in psychoneurotic
anxiety states
with associated
depressive symptoms

spasticity, insomnia, rage, sleep disturbances, stimulation have been reported; should these occur, discontinue drug. Isolated reports of neutropenia, jaundice; periodic blood counts and liver function tests advisable during long-term therapy.



Roche Laboratories
Division of Hoffmann-La Roche Inc.
Nutley, New Jersey 07110

The MUDRANES

Discreet formulations of four well regarded drugs for the relief of bronchial distress—Potassium Iodide, Glyceryl Guaiacolate, Aminophylline, Ephedrine with Phenobarbital (to lessen cardiac stimulation).



INDICATIONS: For the prompt symptomatic relief of bronchial asthma, emphysema and bronchiectasis. The Mudranes dilate the bronchi and liquefy mucus plugs. **DOSAGE:** Tablet; One tablet with a full glass of water 3 or 4 times daily as required. Divide tablet for child's dose. Elixir; Children, 1 cc for each 10 lbs. of body weight. May be repeated 3 or 4 times a day. Adult, one tablespoonful 4 times daily. All doses should be followed with a glass of water.

CONTRAINDICATIONS: Aminophylline/Theophylline is contraindicated in the presence of severe cardiac arrhythmias and patients with massive myocardial damage. Ephedrine, in presence of severe heart disease, extreme hypertension, and in hyperthyroidism. Phenobarbital, in porphyria and in patients with known phenobarbital sensitivity. Potassium Iodide, in pregnancy (to protect the fetus against possible iodine-induced depression of thyroid activity), in tuberculosis (produces gumma dissolution), and in acne; also in the presence of known iodide sensitivity. **PRECAUTIONS:** Aminophylline/Theophylline should be avoided in patients with massive myocardial damage and/or severe cardiac

arrhythmias. In children, overdose may cause vomiting, cardiac arrhythmias and severe agitation. Ephedrine should be used with caution in the presence of severe cardiac disease, particularly arrhythmias and angina pectoris; avoid hyperthyroidism and severe hypertension. Phenobarbital may be habit-forming. Avoid overdose. Potassium Iodide: Discontinue in the presence of skin rash, swelling of the eyelids and severe frontal headache. Long use may cause goiter. **ADVERSE REACTIONS:** Aminophylline/Theophylline may cause nausea, cardiac arrhythmias, and aggravate severe myocardial disease. It may cause headaches and tachycardia. Vomiting and dizziness are not uncommon. Ephedrine: In patients hypersensitive to CNS stimulation, ephedrine may cause nervousness, tachycardia, extrasystole and ventricular arrhythmias. May cause urinary retention, especially in the presence of partial prostatic obstruction. Psychoneurosis may be aggravated. Pre-existing anginal pain will be aggravated. Phenobarbital may produce severe skin rash. Avoid overdose. May be habit-forming. Potassium Iodide may cause nausea. Over very long period of use, iodides cause goiter. Discontinue if patient develops skin rash, eye irritation, eyelid swelling, or severe frontal headache.

HOW SUPPLIED: Mudrane and Mudrane GG available in bottles of 100 and 1000 tablets; Mudrane-2 and Mudrane GG-2 in 100s; Elixir in pints and half-gallons.

Federal law prohibits dispensing without prescription.



WILLIAM P. POYTHRESS & COMPANY, INC., RICHMOND, VIRGINIA 2326

- **EDITOR**
Walter I. Hume, Jr., M.D.
- **ASSOCIATE EDITOR**
Henry B. Asman, M.D.
- **ASSISTANT EDITORS**
John S. Llewellyn, M.D.
A. Evan Overstreet, M.D.
G. Randolph Schradt, M.D.
- **EXECUTIVE EDITOR**
Robert G. Cox
- **MANAGING EDITOR**
Jerry E. Mahaney
- **ASSISTANT MANAGING EDITOR**
Dianne Lobes
- **DEPARTMENTAL EDITORS**
Paul C. Grider, Jr., M.D., Scientific
John W. Greene, Jr., M.D., Maternal
Mortality
- **BOARD OF CONSULTANTS
ON SCIENTIFIC ARTICLES**

Term Expires July 1, 1977
Lawrence C. Goldberg, M.D.
Carl H. Scott, M.D.
Richard K. Jelsma, M.D.
James A. Meyers, M.D.
Russell R. Rice, M.D.
William J. Callis, M.D.
Charles E. Dabbs, M.D.

Term Expires July 1, 1976
Gehrig M. Rabinsan, M.D.
Mark S. Sexter, M.D.
Thomas E. Baath, M.D.
Patrick L. Jasper, M.D.
Oscar W. Thompson, M.D.
Stephen C. Schindler, M.D.
Van R. Jenkins, M.D.
John W. Miller, M.D.

Term Expires July 1, 1975
Robert E. Arnold, M.D.
Robert A. Hall, M.D.
Chrisman S. Jackson, Jr., M.D.
Lafayette G. Owen, M.D.
Anne Richman, M.D.
Ruel T. Rautt, M.D.
Frank G. Siman, M.D.
Leslie Van Nastrand, M.D.

Journal of The K E N T U C K Y Medical Association

Contents

SCIENTIFIC ARTICLES

- Ampicillin-Resistant Hemophilus Influenzae:
Complacency Ends**
Garrett Adams, M.D. 655
- The Primary Hyperlipoproteinemias**
David E. Bybee, M.D. and
Ronald D. Hamilton, M.D. 658
- The Hirsute Female (Medical Progress)**
James R. Dzur, M.D. and
Ronald D. Hamilton, M.D. 663
- Acute Bacterial Diarrhea (Grand Rounds)**
R. A. Giannella, M.D. 667

EDITORIAL

- Christmas 676

SPECIAL FEATURES

- Digest of Proceedings, 1974 House of Delegates .. 680
- Index of The Journal for 1974 756
- Deceased Kentucky Physicians, 1974 675

ORGANIZATION

- September 25, 1974—President's Luncheon and House of Delegates'
Meeting (Pictures) 677

REGULAR FEATURES

- President's Page 647 Postgraduate Opportunities . 649
- Maternal Mortality 672

KENTUCKY MEDICAL ASSOCIATION

BOARD OF TRUSTEES—1974-1975

Officers

President	HOYT D. GARDNER 508 Watterson City Bldg., Louisville 40218 (502) 452-2684 .1975
President-Elect	DAVID A. HULL 2368 Nicholasville Rd., Lexington 40503 (606) 277-5711 ..1975
Immediate Past President	FRED C. RAINEY 912 Woodland Dr., Elizabethtown 42701 (502) 765-4147 ..1975
Vice-President	LASZLO MAKK 3101 Breckinridge Ln., Louisville 40220 (502) 459-2055 ...1975
Secretary	S. RANDOLPH SCHEEN 1163 Medical Arts Bldg., Louisville 40217 (502) 451-1661 ..1975
Treasurer	KEITH P. SMITH Medical Arts Bldg., Corbin 40701 (606) 528-3211 .....1975
Speaker, House of Delegates	CARL COOPER, JR. Bedford 40006 (502) 255-3282 .....1977
Vice-Speaker	RICHARD B. McELVEIN 2121 Nicholasville Rd., Lexington 40503 (606) 277-7129 ..1977
Chairman, Board of Trustees	PAUL J. PARKS 1109 State St., Bowling Green 42101 (502) 781-5111 ....1975
Vice-Chairman	EDWARD N. MAXWELL St. Joseph Infirmary, Louisville 40217 (502) 636-7561 ....1975

Delegates to the A.M.A.

J. THOS. GIANNINI, Suite 3E, Suburban Medical Plaza, Louisville (502) 897-2555 Jan. 1975-Dec. 1976
CHAS. G. BRYANT, (Alt.) 3357 Medical Arts Bldg., Louisville (502) 452-1558 Jan. 1975-Dec. 1976
FRED C. RAINEY, 912 Woodland Dr., Elizabethtown 42701 (502) 765-4147 Sept. 1974-Dec. 1975
WILLIAM W. HALL, (Alt.) Mayfair Square, Owensboro (502) 684-6255 ....Jan. 1974-Dec. 1975
DAVID B. STEVENS, 2101 Nicholasville Rd., Lexington (606) 278-3481 ....Jan. 1974-Dec. 1975
THOMAS L. HEAVERN, (Alt.) 2435 Alexandria, Highland Hgts. (606) 441-7600 Jan. 1974-Dec. 1975

Trustees

1st	W. EUGENE SLOAN, 2320 Broadway, Paducah 42001 (502) 443-4581 .....1977
2nd	CHARLES C. KISSINGER, Atkinson Park, Henderson 42420 (502) 826-6271 .....1976
3rd	FRANK R. PITZER, Jennie Stuart Memorial Hospital, Hopkinsville 42240 (502) 886-5221....1977
4th	CHAS. B. SPALDING, 201 S. 5th, Bardstown, 40004 (502) 348-5968 .....1977
5th	EDWARD N. MAXWELL, St. Joseph Infirmary, Louisville 40217 (502) 636-7461 ....1975
6th	PAUL J. PARKS, 1109 State St., Bowling Green 42101 (502) 781-5111 .....1975
7th	JOHN P. STEWART, King's Daughters Memorial Hospital, Frankfort 40601 (502) 875-5240 .....1976
8th	RICHARD J. MENKE, 823 Scott St., Covington 41011 (606) 431-3048 .....1975
9th	JAMES L. FERRELL, Bourbon Medical Ctr., Paris 40361 (606) 987-2200 .....1976
10th	JAMES B. HOLLOWAY, JR., 1517 Nicholasville Rd., Lexington 40503 (606) 278-2334.....1976
11th	R. EUGENE BOWLING, 527 W. Main, Richmond 40475 (606) 623-3754 .....1975
12th	WILLIAM T. WATKINS, 500 Bourne Ave., Somerset 42501 (606) 678-8155 .....1977
13th	J. WESLEY JOHNSON, 2301 Lexington Ave., Ashland 41101 (606) 325-1151 ....1976
14th	JERRY D. FRAM, Euclid Avenue, Paintsville 41240 (606) 789-3578 .....1977
15th	HAROLD L. BUSHEY, 406 Knox St., Box 770, Barbourville 40906 (606) 546-3024 .1975

BUYERS GUIDE

DECEMBER BUYERS GUIDE FOR JOURNAL OF KMA 1974

Blue Cross and Blue Shield of Kentucky	650
Burroughs Wellcome Company	651
Dorsey Laboratories	760
General Leasing Corporation	649
Eli Lilly and Company	654

Medical Protective Company	678
Pharmaceutical Manufacturers Association	652-653
William P. Paythress and Company	644
Roche Laboratories	642-643, 761-762
Southern Optical	678

MESSAGE FROM THE PRESIDENT



Mal-Who?

Hopefully this will not be coal to Newcastle or coke to Canterbury—whatever we are in crisis with, there are at best only obfuscated waves of answers to the problem.

What is malpractice? A pure example is a patient who has been rendered care below an acceptable level prevalent in the community. From that point on, it's all conjecture, judgment and rights—the rights being legal, medical, patient and moral.

What are the truths? 1. There are more such suits than before. 2. The settlements average larger. 3. There is more legal expertise (both sides) than ever before. 4. There are more medical procedures, techniques, and remedies. 5. Plaintiff and defendant costs are up. 6. There are fewer companies issuing liability insurance. 7. It is much more difficult for beginning physicians to be covered and much more costly premiums for all. 8. People are more "suit conscious". 9. Medical practice is better but more complicated and people expect more infallibility as a consequence. Anything less than perfect may be inferred by a patient to be faulty. 10. Consumerism has educated patients to think that a lawsuit is a good means of redress of grievances real or imaginary.

Why do patients sue? At a recent meeting between American Medical Association and American Bar Association representatives, these reasons were found to be the most common: 1. Patients become angry or dislike their doctor. 2. Patients feel they have lost the ability to communicate their dissatisfaction to the physician. 3. The remark of another physician or ancillary medical person to the patient. 4. The patient reads or hears from another patient what he then interprets as poor care to himself. 5. Patients' over-expectation of what is medically possible. 6. Patients feeling that great monetary gain may be possible. 7. Patients' basic personal antagonisms strike out at all, even those trying to help them. 8. Refusal of patient or family to accept medical inevitabilities. 9. Efforts to collect medical bills. 10. Calamities in the medical environment not controllable by the physician (heating pads, wrong medication, burst steam pipes, etc.). You will notice that none of these 10 common causes have anything specific to do with a physician's scientific expertise.

What are some other truths (can you stand more?)? 1. It is not possible to eliminate contingency fees. 2. Anyone can bring suit against anyone else. 3. Even the very best doctors get sued. 4. Under current structure and financing, the American Medical Association cannot build its own medical liability company. 5. Organized medicine (if we will become at all levels organized) can supply answers. These answers are mostly legislative as are the legalities that make possible more such suits. Such remedial legislation is: 1. Strengthening locality laws. Limit the ability of "outside experts" to testify in regard to local medical standards. 2. Reduce statute of limitation rules. This was recently done in Canada from 30 to 1 years. 3. Legislation to protect peer review groups from legal action and also to protect their confidentiality. 4. Arbitration laws. 5. Reasonable standards legislatively drawn around the doctrine of informed consent. 6. State standards drawn limiting by fiat the maximum permissible dollar liability. 7. More effective statutes for capricious or nuisance suits to be in turn subject to legal redress. 8. National legislation drawn to prevent the complete collapse of legal defenses and to draw perimeters of maximum dollar liability.

Considering all the above it is evident that many things are possible and we can do them if we work together—all physicians. Our Kentucky Medical Association is hard at work now. The American Medical Association is poised to submit multiple responses to this crisis.

Let this disturbing and tearing issue become by our effort and solutions another product of a dedicated professional organization bringing creditable and appropriate answers.

Hoyt D. Gardner, M.D.

Hoyt Gardner

Breast Cancer: earlier warning system

Futility and frustration beset the physician confronted with breast cancer. For the last 35 years, the survival rate has not significantly changed despite intensive educational programs aimed at earlier detection, and improvement in treatment techniques.

What is the outlook? We know the key to reducing mortality from breast cancer is in the *earliest possible* diagnosis. The stage at which breast cancer is detected is *crucial* to the outcome of treatment. By the time a lump is discovered through BSE or clinical examination, critical time may have been lost.

And we *do* have the means to achieve earlier diagnosis. We do have an *earlier* warning system. Mammography and thermography can detect breast cancer *before* a lump is discernible by palpation. To demonstrate that it is practical and feasible to detect breast cancer earlier by using these modalities, the American Cancer Society and the National Cancer Institute are funding a network of breast cancer demonstration projects. Supported by grants of \$2-million from

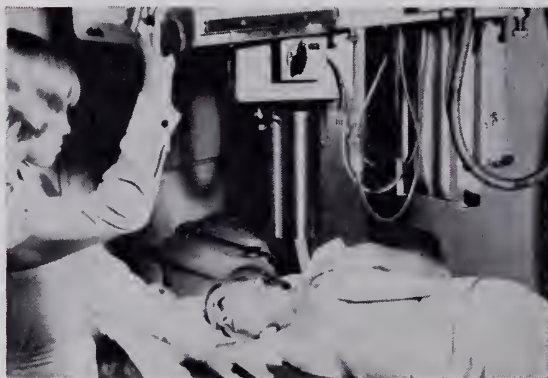
the ACS and \$4-million from the 20 such centers are expected to be operative across the country by the end of the year. Each will screen at no cost approximately 5,000 women annually in what is considered to be the ideal detection program—to include clinical examination, mammography and

thermography. Each of these detection methods contributes independently to the detection of breast cancer, and none can be dispensed with in the search for early disease.

At present we cannot prevent breast cancer, but the potential for saving lives is immense. Five-year survival surges dramatically from 53% when the axillary nodes are negative, to approximately 85% when the disease is localized, to

100% for in-situ cancer.

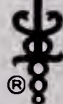
We have an earlier warning system. Let's use it.



Mammography



Thermography



american cancer soc

Continuing Educational Opportunities

From The
KMA Postgraduate Medical
Education Office

IN KENTUCKY

DECEMBER

- 20-21 "Endocrinology for the Practicing Physician,"*
University of Kentucky Medical Center, Lexington. Fee: \$75

JANUARY 1975

- 15-16 KAFP Northern Kentucky Scientific Seminar,
Rowntowner Motor Inn, Fort Mitchell

FEBRUARY

- 12-13 "Family Planning in a Rural Community,"**
Mountain Maternal Health League, Inc., Training Program, Berea

IN SURROUNDING STATES

JANUARY 1975

- 15-16 "Controversies in Surgery," sponsored by the
Cleveland Clinic Educational Foundation,
9500 Euclid Ave., Cleveland, O. 44106. Fee:
\$100
- 25 Ventilatory Problems Workshop,** sponsored
by Oak Ridge Hospital, at Holiday Inn, Oak
Ridge, Tennessee

FEBRUARY

- 3-7 "Current Concepts in Oncology," sponsored
by the American College of Physicians with
the University of Michigan Medical Center,
Ann Arbor.

*For further information, contact: Frank R. Lemon,
M.D., Continuing Education, College of Medicine,
University of Kentucky, Lexington 40506

**For further information, contact: Judy Keith,
Mountain Maternal Health League, Inc., 211 Municipal
Bldg., Berea 40403

***For further information, contact: Doris Croley,
Oak Ridge Hospital, 125 W. Tennessee Avenue, Oak
Ridge, Tenn. 37830

General LEASING

Doctor! This is Your Own Plan
ENDORSED BY THE

**Kentucky Medical
Association**

for the leasing of

Cars—All makes & models,
Medical, Surgical & Laboratory
Equipment
and Office Furnishings.

**16 YEARS EXPERIENCE
IN THIS FIELD**

**General Leasing
CORPORATION**

121 Bauer Ave. St. Matthews

(502) 896-0383

JANUARY

is the month for you and your employees to join the KMA endorsed Group Health Care Program.

All member doctors and their employees are eligible for this special Kentucky Medical Association Program. Benefits include comprehensive coverage for hospitalization, surgical-medical expenses and Major Medical benefits.

If your office has this Special Group Program, present employees not covered by your program may join during January. New employees may enroll within 60 days after they become eligible.

For more information, contact the Enrollment Department:

3101 Bardstown Road
Louisville, Kentucky 40205
(502) 452-1511

**Blue Cross
Blue Shield**
of Kentucky



WHEN FLU HITS AND HURTS

RE

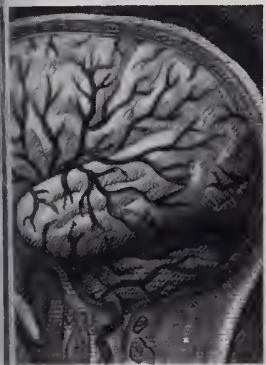
Muscles
and joints



When it hurts, Empirin
Compound with Codeine usually
relieves the symptomatic
pain.

RE

Headache



Headache associated respiratory
pain. Empirin Compound
with Codeine provides an
effective bonus in addition to
pain and bodily
relief.

Describing convenience:
5 refills in 6 months,
excretion (unless
prohibited by state law); by
order in many states.

Compound with
aspirin 0.3, codeine
phosphate* 32.4 mg. (gr. 1/2);
codeine phosphate*
(gr. 1) *Warning—may
be habit forming. Each tablet
contains: aspirin gr. 3 1/2,
codeine gr. 2 1/2, caffeine

Burroughs Wellcome Co.
Research Triangle Park
North Carolina 27709



HERE

Respiratory tract

EMPIRIN[®] COMPOUND c CODEINE

#3, codeine phosphate* (32.4 mg.) gr. 1/2

#4, codeine phosphate* (64.8 mg.) gr. 1

The Role of the Detail Man

Dr. Willard Gobbell
Family Physician
Encino, California

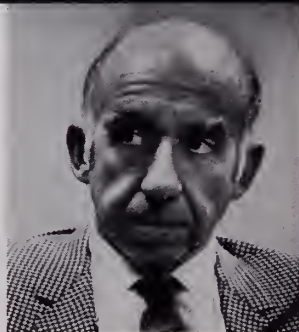


"I may be prejudiced, very much in favor of the detail man I meet. Most of them are knowledgeable about the drugs they promote and can be a great help in advising me with new medication."

Family Physician's Perspective

I think that most general practitioners in this area feel they can do about the detail man. Over the years I have gotten to know the men who visit me regularly and they in turn have become acquainted with my particular interests and the nature of my practice. They, therefore, limit their discussion to areas as possible to the areas of interest to me. Since I usually see the detail representative again in future visits, it is in his best interest to supply me with the most honest, factual, as well as up-to-date information about his products.

Dr. Jeremiah Stamler
Chairman
Department of Community
Health and Preventive
Medicine, and Dingman
Professor of Cardiology
Northwestern University
Medical School



"In the total picture of health problems in the community there is a potential for the detail man to play a meaningful role."

The Positive Influence

My contact with representatives and salesmen of the pharmaceutical industry is the type of contact that people in a medical research people, and academic people have and that's in a way on a somewhat different level than that of the practicing physician.

Let me touch on how we really perceive the role of the detail representative. These men reach large numbers of health professionals. Thus they could be at times actually are — disseminators of useful information. They could consistently serve an educational function in their ability to discuss their products.

At present they do disseminate printed material, brochures, pamphlets — some of it scientifically sound and therefore truthful — as well as some excellent material produced by the pharmaceutical industry. When they function

Opinion
&
Dialogue

a Source of Information?

Yes, with certain reservations. The average sales representative has a great fund of information about the drug products he is responsible for. He is usually able to answer most questions fully and intelligently. He can also supply a host of articles that contain a great deal of information. Here, we must exercise some caution. I usually accept most of the statements and opinions that I find in the sales literature and studies which come from the larger teaching facilities. I do so without saying that a physician should also rely on other sources for his information on pharmacology.

Selection of Sales Representatives

Ideally, a candidate for the position as a sales representative of a pharmaceutical company should be a graduate pharmacist with a questioning mind. I don't think this is possible in every case, but it becomes the responsibility

of the pharmaceutical company to train these individuals comprehensively. It is of very great importance that the detail man's knowledge of the product he represents be constantly reviewed as well as updated. This phase of the sales representative's education should be a major responsibility of the medical department of the pharmaceutical company.

I am certain that most of these companies take special care to give their detail men a great deal of information about the products they produce—information about indications, contraindications, side effects and precautions. Yet, although most of the detail men are well informed, some, unfortunately, are not. It might be helpful if sales representatives were reassessed every few years to determine whether or not they are able to fulfill their important function. Incidentally, I feel the same way about periodic assessments of everyone

in the health care field, whether they be general practitioners, surgeons or salesmen.

Value of Sampling

I personally am in favor of limited sampling. I do not use sampling in order to perform clinical testing of a drug. I feel that drug testing should rightly be left to the pharmacology researcher and to the large teaching institutions where such testing can be done in a controlled environment.

I do not use samples as a "starter dose" for my patients. I do, however, find samples of drugs to be of value in that they permit me to see what the particular medication looks like. I get to see the various forms of the particular medication at first hand, and if it is in a liquid form I take the time to taste it. In that way I am able to give my patients more complete information about the particular medications that I prescribe for them.

ity they are indeed useful; particularly in the fact that they originate broadly based educational material and serve not just "pushers" of their drugs.

Other Side of the Coin

Obviously, the pharmaceutical companies are not producing all educational material as a labor of love—we are in the business of selling drugs for profit. In this regard, the bit of bitious and improperly motivated sales representative can have a negative influence on the practicing physician, both by presenting a one-sided picture of his product, and by encouraging the physician to depend too heavily on the salesman for his total therapy. In many ways, the salesman has often obscured objective reality and defined his potential role as an educator.

Industry Responsibility

Since the detail man must be an information resource as well as a sales representative of his particular pharmaceutical company, he must be carefully selected and

thoroughly trained. That training, of course, must be an ongoing one. There must be a continuing battle within and with the pharmaceutical industry for high quality not only in the selection and training of its sales representatives, but also in the development of all of its promotional and educational material.

The industry must be ready to accept constructive as well as corrective criticism from experts in the field and consumer spokesmen, and be willing to accept independent peer review. The better educated and prepared the salesman is, the more medically accurate his materials, the better off the pharmaceutical industry, health professionals and the public—i.e., the patients—will be.

Physician Responsibility

The practicing physician is in constant need of up-dated information on therapeutics, including drugs. He should and does make use of drug information and answers to specific questions supplied by the pharmaceutical representative. However, that informa-

tion must not be his main source of continuing education. The practitioner must keep up with what is current by making use of scientific journals, refresher courses, and information received at scientific meetings.

The practicing physician not only has the right, but has the responsibility to demand that the pharmaceutical company and its representatives supply a high level of valid and useful information. I feel certain that if such a high level is demanded by the physician as well as the public, this demand will be met by an alert and concerned pharmaceutical industry.

From my experience, my impression is that sectors of the pharmaceutical industry are indeed ethical. I challenge the industry as a whole to live up to that word in its finest sense.

*Pharmaceutical
Manufacturers Association
1155 Fifteenth Street, N.W.
Washington, D.C. 20005*



Kefzöl[®]

cefazolin sodium

Ampoules, equivalent to 1 Gm. of cefazolin



*Additional information available
to the profession on request.*

Eli Lilly and Company
Indianapolis, Indiana 46206
400380

The JOURNAL of the Kentucky Medical Association

ISSUED MONTHLY UNDER THE DIRECTION OF THE BOARD OF TRUSTEES

VOLUME 72

DECEMBER 1974

No. 12

Ampicillin-Resistant *Hemophilus Influenzae*: Complacency Ends

GARRETT ADAMS, M.D.*

Louisville, Kentucky

Ampicillin-resistant strains of Hemophilus influenzae have been reported recently in the United States. Anticipating their emergence in Kentucky, recommendations are made for their identification and on the clinical management of Hemophilus infections.

AMPICILLIN came to us by way of Great Britain, where it was heralded as a penicillin that was active against gram-negative organisms. Its arrival on the clinical scene in the United States was greeted with great enthusiasm, and justifiably so, because of its many unique properties. It was particularly welcomed by physicians who treat children, because, for the first time, they had a bactericidal antibiotic which was effective in treating *Hemophilus influenzae* infections without risking serious side effects. Unfortunately, strains of *H. influenzae* have been reported recently that are highly resistant to ampicillin. This new development in regard to ampicillin is important to any Kentucky physician who uses antibiotics.

Because ampicillin as a single drug was effective against the three common offenders in bacterial meningitis: *H. influenzae*, pneumococci, and meningococci, it was submitted to clinical trials for the treatment of bacterial

meningitis in the United States soon after it was introduced here.^{1,2} These studies demonstrated that ampicillin therapy alone was comparable in safety and efficacy to the traditional triple therapy: penicillin, sulfa and chloramphenicol,² or double therapy: penicillin and chloramphenicol.¹ This work was accepted by the medical community, and the switch to ampicillin as initial therapy for bacterial meningitis began in 1966 and was virtually complete in the United States by 1968. The dosages used were around 150 mg/kg/24 hrs.

However, by 1968 reports of ampicillin treatment "failure" began to be published.⁴⁻⁷ When scrutinized, it was concluded that these "failures" occurred as a result of either low dosage, improper route of administration, inadequate duration of therapy, or other deficiencies in administration of a still effective antibiotic, because when the strains of *H. influenzae* involved in the "failures" could be tested in the laboratory, they were found to still be sensitive.^{8,9} It was then that most centers began to adopt the high dosage levels of ampicillin currently being used to treat serious *H. influenzae* infections, 400 mg/kg/24 hrs. Most centers insisted that these patients be treated for at least 10 days intravenously, and various other rules and regulations were suggested to avoid treatment failures.¹⁰

Adherence to these suggestions seemed to have a beneficial effect, since there has been little talk of treatment failures for the past four years. Then, last winter, what we had all been afraid would happen, happened. It was re-

*Assistant Professor of Pediatrics and Microbiology and Director, Infectious Disease Section, Department of Pediatrics, University of Louisville School of Medicine, Louisville

ported almost immediately in *The Lancet*.¹¹ An 18-month-old child was treated at a pediatric unit in Maryland for *H. influenzae* type B meningitis with ampicillin (400 mg/kg/24 hrs) intravenously every four hours and failed to respond. Unfortunately, he died half-way into the second day of treatment. The organism involved was found to be highly resistant to ampicillin.¹² The minimal inhibitory concentration (MIC) of ampicillin required for this organism was 400 mcg/ml, whereas sensitive strains usually have an MIC of 1.25 mcg/ml or less. Epidemiologic investigation revealed other ampicillin-resistant strains of *H. influenzae* type B at the same day care center from which the child was referred. Subsequent reports of other bona fide ampicillin-resistant strains of *H. influenzae* have been received from Washington, D.C.;¹³ Atlanta;¹⁴ Austin, Texas;¹⁵ Germany,¹⁶ and England.^{17,18} Fortunately, all of these strains have been sensitive to chloramphenicol, and most of the patients have responded to it when lack of clinical improvement on ampicillin was recognized and therapy was changed. John Nelson, M.D., from Dallas has written an excellent critique of this subject in a recent editorial,¹⁶ and an ad hoc committee of the American Academy of Pediatrics Committee on Infectious Diseases has issued a statement of ampicillin-resistant strains of *Hemophilus influenzae*.¹⁹

To my knowledge, no ampicillin-resistant strains of *Hemophilus influenzae* have been recovered in Kentucky at the time of this writing, but in this age of great individual mobility, we can predict that this problem will affect us directly in the future; it is only a question of "when". It is in this perspective that the following suggestions are made for physicians in our state:

1. Laboratory Testing of *Hemophilus Influenzae*:

a. All strains of *H. influenzae* isolated from patients with systemic infections, such as meningitis, arthritis, cellulitis, epiglottitis, or septicemia, should be screened for sensitivity to ampicillin and chloramphenicol in the laboratory. Current recommendations for disc sensitivity testing methods for *Hemophilus* have been reviewed and published by the Center for Disease Control in their *Morbidity and Mortality Weekly Report*.²⁰ New cases of ampicillin-resistant *H. influenzae* infections will also be

published there.

b. Strains that show resistance, i.e., less than a 21 mm clear zone around the 1 mcg ampicillin disc²⁰ should be forwarded to CDC through the State Health Laboratory at Frankfort for further testing.

c. Routine *Hemophilus* isolates could also be monitored for sensitivity to ampicillin and chloramphenicol from time to time so that the existence of ampicillin-resistant strains in the community would be known as soon as possible.

2. Clinical Management of Suspected or Proven *Hemophilus* Infections:

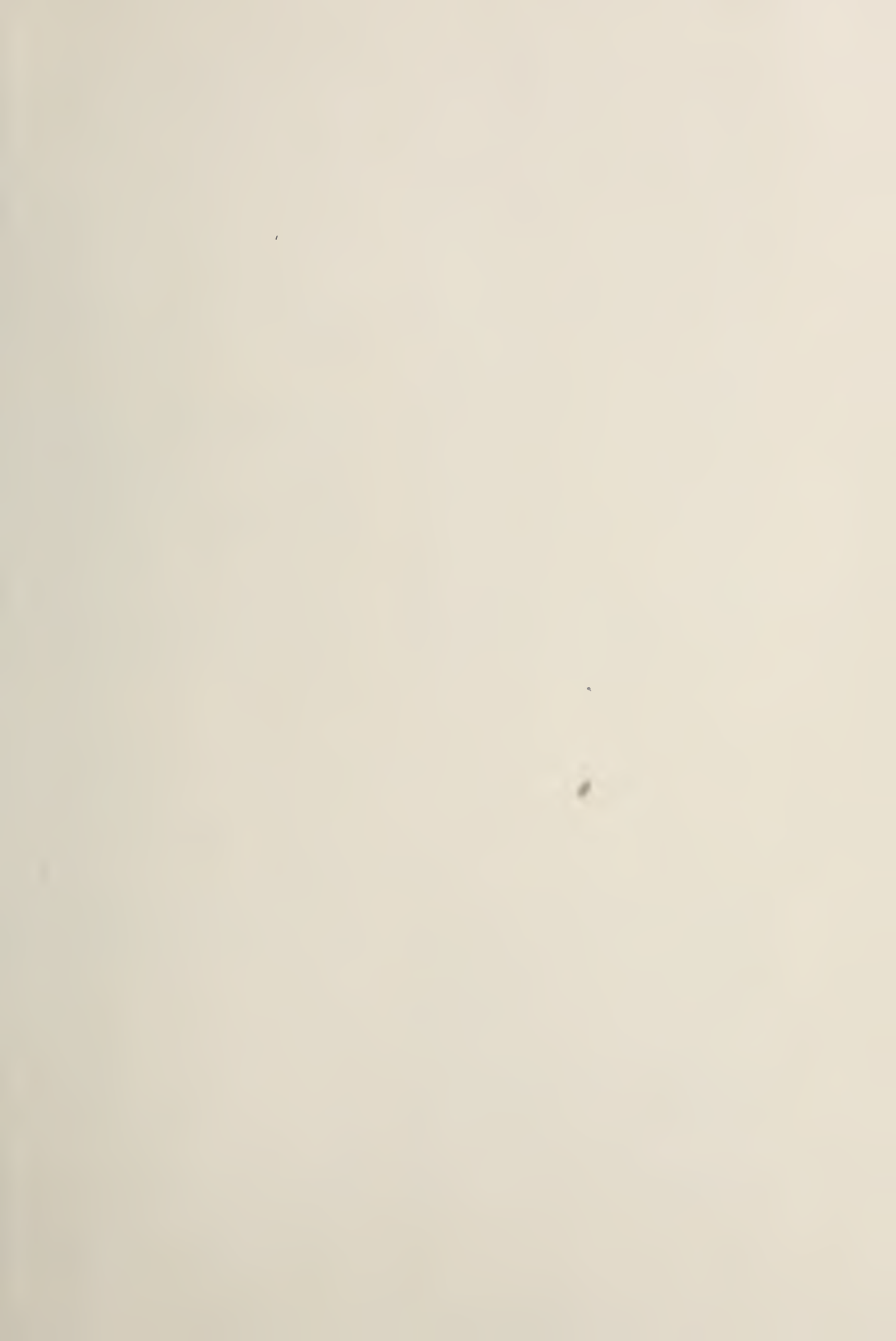
a. Until ampicillin-resistant strains of *H. influenzae* are detected in Kentucky it seems reasonable to continue to use ampicillin as initial therapy in bacterial meningitis of children or other serious systemic illnesses in which *H. influenzae* is suspected (150-400 mg/kg/24 hrs.)

b. Repeat the lumbar puncture. Although there are certainly some children who do extremely well on ampicillin who do not require repeat taps, because of the recent threat of resistance we have now adopted a policy of repeating the lumbar puncture at 24 hours routinely in children with meningitis due to *Hemophilus influenzae*. At this time, Gram stain of the direct smear of the CSF should show a *definite decrease in the numbers or organisms present*, regardless of the cellular and chemical changes. One should feel free to repeat the lumbar puncture at any time that there is a clinical indication that the patient is not doing well.

c. If ampicillin resistance, or treatment failure, is discovered, the drug of choice would be chloramphenicol (100 mg/kg/24 hrs).

d. Some may elect to use combinations of penicillin and chloramphenicol or ampicillin and chloramphenicol as initial therapy of bacterial meningitis, subsequently dropping the antibiotic which is not required as shown by culture and sensitivity testing. This approach has both advantages and disadvantages which have been treated elsewhere.^{16,19}

A final general comment should be made about antibiotic usage. It seems that resistant strains of organisms usually appear during conditions in which the use of the antibiotic in question is very heavy, even to the point of misuse. Many physicians and pharmaceutical



✓ CORRECTIONS

Results of Gram Stain. — In the article "Penicillin-Resistant *Haemophilus Influenzae*: Correlation of Serological and Bacteriological Findings," published in the December, 1974, issue (pp. 655-657), the third sentence under the heading "Results of Gram Stain" on page 656 should read as follows: "At the time of Gram stain of the direct smear of the C. pneumoniae, regardless of the cellular and morphological changes."

J. Kentucky Med. Assoc.

firms have thought of ampicillin as an all-purpose antibiotic. Unfortunately, the truth is that there is no "all-purpose" antibiotic. We should all be enjoined to use antibiotics selectively, trying to choose specific agents to treat specific organisms whose presence we have good reason to suspect either by culture or other convincing evidence. The days that ampicillin will continue to be effective against *Hemophilus influenzae* now appear to be numbered. We should all ask ourselves, how much have we each contributed to shortening the effective clinical life of this agent by using it inappropriately or unnecessarily?

References

1. Mathies, A.W., Jr., Leedom, J.M., Thrupp, L.D., Ivler, D., Portnoy B., and Wehrle, P.F.: Experience with ampicillin in bacterial meningitis. *Antimicrobial Agents and Chemotherapy*, 1965.
2. Barrett, F.F., Eardley, W.A., Yow, M.D., and Leverett, H.A.: Ampicillin in the treatment of acute suppurative meningitis. *J. Pediat.* 69:343-353, (Sept.) 1966.
3. Young, L.M., Haddow, J.E., and Klein, J.O.: Relapse following ampicillin treatment of acute *Hemophilus influenzae* meningitis. *Pediatrics* 41:516-518, (Feb.) 1968.
4. Greene, H.L.: Failure of ampicillin in meningitis. *Lancet* 41:861, (April 20) 1968.
5. Gold, A.J., Lieberman, E., and Wright, H.T., Jr.: Bacteriologic relapse during ampicillin treatment of *Hemophilus influenzae* meningitis. *J. Pediat.* 74:779-781, (May) 1969.
6. Coleman, S.J., Auld, E.B., Cannon, J.D., Rosenman, S.B., and Warren, G.H.: Relapse of *Hemophilus influenzae* type B meningitis during intravenous therapy with ampicillin. *J. Pediat.* 74:781-784, (May) 1969.
7. Cherry, J.D. and Sheenan, C.P.: Bacteriologic relapse in *Hemophilus influenzae* meningitis. *N. Eng. J. Med.* 278:1001-1003, (May 2) 1968.
8. Yow, M.D.: Ampicillin in the treatment of meningitis due to *Hemophilus influenzae*: An appraisal after 6 years of experience. *J. Pediat.* 74:848-852, (May) 1969.
9. Levine, M.S., Boxerbaum, B., and Heggie, A.D.: Recrudescence of *H. influenzae* meningitis after therapy with ampicillin. *Clin. Pediat.* 9:54-57, (Jan.) 1970.
10. Mathies, A.W., Jr., and Wehrle, P.F.: Management of bacterial meningitis in children. *Pediat. Clin. N. Amer.* 15:185-195, (Feb.) 1968.
11. Thomas, W.J., McReynolds, J.W., Mock, C.R., and Bailey, D.W.: Ampicillin-resistant *Hemophilus influenzae* meningitis. *Lancet* 1:313, (Feb. 23) 1974.
12. Schiffer, M.S., Schneerson, R., MacLowry, J., and Robbins, J.B.: Clinical, bacteriological, and immunological characterisation of ampicillin-resistant *Hemophilus influenzae* type B. *Lancet* 2:257-259, (Aug. 3) 1974.
13. Khan, W., Ross, S., Rodriguez, W., Controni, G., and Saz, A.K.: *Hemophilus influenzae* type B resistant to ampicillin (A report of two cases). *JAMA* 229:290-301, (July 15) 1974.
14. Tomeh, M.O., Starr, S.E., McGowan, J.E., Jr., Terry, P.M., and Nahmias, A.J.: Ampicillin-resistant *Hemophilus influenzae* type B infection. *JAMA* 229:295-297, (July 15) 1974.
15. Holt, R., et al: Ampicillin-resistant *Hemophilus influenzae*—Texas. *Morbidity Mortality Weekly Rept.* 23:99, (Mar. 16) 1974.
16. Nelson, J.D.: Should ampicillin be abandoned for treatment of *Hemophilus influenzae* disease? *JAMA* 229:322-324, (July 15) 1974.
17. Turk, D.C.: Ampicillin-resistant *Hemophilus influenzae* meningitis. *Lancet* 1:453-454, (Mar. 16) 1974.
18. Clymo, A.B. and Harper, I.A.: Ampicillin-resistant *Hemophilus influenzae* meningitis. *Lancet* 1:453-454, (Mar. 16) 1974.
19. Katz, S.L., Klein, J.O., and Yow, M.D.: Statement of ad hoc committee on ampicillin-resistant *H. influenzae*. American Academy of Pediatrics Committee on Infectious Diseases. (Aug.) 1974.
20. Hollman, J.H., et al: Ampicillin-resistant *Hemophilus influenzae* meningitis—Maryland, Georgia. *Morbidity Mortality Weekly Rept.* 23:77-78, (Mar. 2) 1974.

Manuscript Memos

Manuscripts should be submitted in duplicate to The Journal of KMA, an original copy and one carbon, and typed with double spacing. Maximum length of an article should not exceed 4500 words; the Board of Consultants on Scientific Articles prefers that they be briefer than this when possible.

In submitting a manuscript, the author is requested to include a concise summary, not to exceed 35 words, to be used as a sub-title when the article is published in The Journal. The purpose of the summary is to create additional interest and encourage greater readership.

Footnotes and bibliographies should conform to the style of the Quarterly Cumulative Index Medicus published by the American Medical Association. This requires in the order given name of author, title of article, name of periodical, with volume, page, month—day of month if weekly—and year. The Journal of the KMA does not assume responsibility for the accuracy of references used with scientific articles.

All scientific material appearing in The Journal is reviewed by the Board of Consultants on Scientific Articles. The editors may use up to six illustrations with the essayist bearing the cost of all over three one-column halftones.

Arrangements for reprints of an article should be made directly with the publisher of The Journal, Gibbs-Inman Printing Company, 817 W. Market St., Louisville, Ky.

The bylaws of the Kentucky Medical Association provide that all scientific discussions and papers read before the KMA Annual Meeting shall be referred to the KMA Journal for consideration for publication. The bylaws further state that the editor or the associate editor may accept or reject these papers as it appears advisable and return them to the author if not considered suitable for publication.

Please mail your scientific articles to The Journal of the Kentucky Medical Association, 3532 Ephraim McDowell Drive, Louisville, Kentucky 40205.

The Primary Hyperlipoproteinemias

DAVID EARL BYBEE, M.D.* AND RONALD D. HAMILTON, M.D.**

Lexington, Kentucky

It has become common practice to screen for hyperlipidemia (Hyperlipoproteinemia) by determination of the plasma cholesterol and triglyceride level. Once abnormalities are detected, they should be clarified as to type, and following this, managed with appropriate diet and in some instances with drugs.

KANNEL, in the Framingham study, has demonstrated that cholesterol elevation is a risk factor in coronary artery disease and peripheral arterial atherosclerosis.¹ The risk of hypertriglyceridemia has been less easily established, but recently Carlson has also shown this relationship in a Scandinavian population.² Although it is conceded that an abnormality in lipid metabolism may represent only one phase of this complicated vascular disease, it is believed that present evidence of an epidemiological nature supports attempts to restore blood lipid levels to physiological normalcy.

Hyperlipoproteinemia is a metabolic disorder characterized by an elevation in plasma cholesterol or triglycerides, or both. Classes of lipoproteins (packages of triglycerides, phospholipids, cholesterol, carbohydrate, and protein) may be separated by either centrifugation or by electrophoresis. It is a convenient fact of nature that the separation of lipoproteins by centrifugation is comparable to that by electrophoresis in most clinical situations. Thus the chylomicrons from ultracentrifugation correlate well with the non-migrant fraction on electrophoresis, Low Density Lipoproteins (LDL) with the beta fraction, Very Low Density Lipoproteins (VLDL) with the pre-beta band, while the High Density Lipoproteins (HDL) occupy the alpha migrant band. The various classes of hyperlipoproteinemia are more easily understood if the lipoprotein package which is abnormally elevated is identified.

*Resident, Internal Medicine, and **Associate Professor of Medicine, Department of Internal Medicine, University of Kentucky Medical School, Lexington

In the now standard classification system of Fredrickson and Levy, there are five types of hyperlipoproteinemia with Type II being divided into an "a" and "b" subclassification.³ The type is defined by its electrophoretic pattern which is in turn dependent upon its composition of LDL, VLDL, and Chylomicrons.

Diagnosis

The diagnosis of hyperlipoproteinemia begins with a screen for elevated plasma cholesterol and triglycerides. Secondary forms of hyperlipoproteinemia must be differentiated from primary forms. A number of metabolic abnormalities involving the liver, kidneys, pancreas, and thyroid, as well as alcoholic intake, stress, and improper diet may cause elevation of the lipoproteins. In most instances treatment of the underlying condition results in normalization of the lipid level. Once the secondary forms are excluded and an elevation is found, this should be translated into the specific lipoprotein moiety abnormality and finally into one of the five phenotypic patterns. Plasma or serum to be tested is usually obtained during a period of stable weight on a "usual American diet" after a 12 to 14 hour fast. If at all possible, all hypolipidemic drugs, steroids, oral diabetic compounds, estrogens, and birth control pills should be stopped three to four weeks before obtaining the screening test. In addition to electrophoresis, examination of the chilled serum may be of help. This takes advantage of the finding that LDL in chilled solution is clear, elevations of VLDL are turbid and that chylomicrons, like cream, will float to the top.*

Type I, or chylomicronemia, may be suspected by finding a normal to slightly elevated cholesterol with a triglyceride of greater than 1000 in the presence of a sample of serum containing a cream layer over clear serum. The electrophoretic pattern shows a marked chylomicron band.

Type IIa, or familial hypercholesterolemia, is suggested by a markedly elevated cholesterol of the LDL class with clear serum. The trigly-

*Keep at 4°C for 18 to 24 hours.

cerides are not elevated. On electrophoresis the beta band is prominent.

In Type IIb, however, the triglycerides are modestly elevated and the serum is clear to cloudy. The electrophoretic pattern is similar to IIa except that there is often "smearing" between the beta and the pre-beta bands at higher triglyceride levels.

Type III is referred to as Broad Beta Disease. The finding of normal to elevated cholesterol and elevated triglycerides to 1000 in a clear to cloudy serum containing an abnormal VLDL-like lipoprotein suggests this disease. The electrophoretic pattern shows, as the name implies, a broad beta band. A Type III abnormality should also be suspected when the cholesterol and triglyceride concentrations vary greatly from time to time but the ratio stays close to 1:1. A definitive diagnosis of this particular abnormality depends on finding an abnormal lipoprotein in plasma (VLDL) with beta mobility on electrophoresis. There is also a much higher content of cholesterol than is normal in these lipoproteins.

Type IV is commonly called endogenous hypertriglyceridemia. The cholesterol may be somewhat elevated, but the triglycerides, as VLDL, are markedly elevated in a turbid serum. The electrophoretic pattern shows marked increase in the pre-beta band and less so in the beta band.

Type V is mixed hyperlipidemia and is a mixture of the findings of I and IV. The cholesterol is elevated, as are the triglycerides, but this level is usually not so high as it is in Type I. Upon refrigeration there is a cream layer over a cloudy serum and the electrophoretic contains both a prominent chylomicron band and a pre-beta band.

Metabolism

In order to use diet and drugs rationally, the metabolism of cholesterol and triglycerides should be considered.

The metabolism of cholesterol is the balance of input, storage pools and excretion. Input may occur by synthesis or absorption. Excretion is by either neutral sterols (cholesterol) or by acidic sterols (bile acids). The size of the storage pools is dependent upon the rate of input and the rate of excretion.

Synthesis occurs in all tissues with the liver, terminal ileum, and skin accounting for well

over 95%. The pathway begins with acetate which is converted stepwise to beta-hydroxy, beta-methyl glutaryl-CoA. This is reduced by a reductase (HMG-CoA reductase) to mevalonate and eventually to cholesterol. This reductase is the rate-limiting step and is inhibited by an increase in the level of dietary intake and by increases in the size of the bile acid pool.⁴

Absorption occurs for both dietary and recycled cholesterol esters. These are first broken down intralumenally into free cholesterol by pancreatic cholesterol esterases and formed in to micelles in the presence of bile acids. The micelles are taken into the cell in which the cholesterol is re-esterified into chylomicrons and excreted into the lymphatics. The rate-limiting step appears to be the movement of chylomicrons from the cell into the intestinal lymphatics. In man, absorption is about 10% of the ingested load of cholesterol.

Excretion of cholesterol, as neutral sterol, occurs by turnover of intestinal luminal cells, cholesterol in bile, and an unknown quantity via the skin. Cholesterol is also metabolized in the liver to form bile acids, and although these are largely re-cycled, there is a definite daily loss. The net effects tend to maintain a steady state. Any depletion of cholesterol or bile acids increases synthesis. Therefore, any therapy directed at reducing cholesterol by reducing intake or diverting the bile acids must remove more cholesterol than the increased production supplies.

Dietary triglycerides are absorbed by two different routes depending upon the length of the fatty acid side chains.³ If the fatty acid is c-12 or longer, it is packaged in the luminal cell into chylomicrons and transported to the blood stream via the thoracic duct. Triglycerides which have shorter side chains are absorbed directly into the circulation as they are by the portal circulation. These dietary triglycerides are normally completely cleared from the plasma in 8 to 12 hours after a meal. Fasting chylomicronemia is then a deficit of clearing. Those triglycerides formed in the liver from glucose and free fatty acids are called endogenous triglycerides and are distributed in the blood stream as VLDL. An elevated VLDL fraction may indicate an overproduction, or an inability, to clear these "endogenous" triglycerides.

Dietary Considerations

The basic maneuvers of dietary manipulation include: 1) caloric restriction, 2) cholesterol restriction, 3) modification of the unsaturated/saturated fat ratio, and 4) modification of the alcohol intake.³ Caloric restriction seems to enhance liver and peripheral tissue catabolism of Free Fatty Acids and to promote the removal of VLDL from the circulation. Cholesterol is absorbed in amounts proportional to the ingested amount and does not have a fixed upper limit as previously thought. It is then reasonable to restrict cholesterol. In practice a dietary restriction of less than 300 mg per day can result in a 15% to 25% reduction in serum cholesterol in some patients. Dietary alteration of the saturated fats to polyunsaturates (from the "usual American diet" ratio of 0.2 to one with a ratio of 3) seems to lower plasma cholesterol. The addition of oils of grains, seeds, and nuts to the diet is advocated by some, but its efficacy is controversial. It is a rule of thumb that saturated fats and cholesterol keep company in the same foods, that is, dairy fats and meat. Alcohol is known to increase the synthesis of fatty acids, to decrease their oxidation, to increase the hepatic and intestinal production of VLDL into the circulation and decrease their clearance. The effect of alcohol is more striking upon patients with hyperlipoproteinemias than upon the normal patient. It should be mentioned that a positive correlation exists between the above dietary restrictions and an increased incidence of gall stones.⁶

The Major Hypolipidemic Drugs

There are no ideal drugs for use in the treatment of hyperlipoproteinemia. These drugs may be classified according to effect; that is, drugs which lower cholesterol and drugs which reduce VLDL. No good drug is available for chylomicronemia. The "key" drugs are generally considered to be cholestyramine, d-thyroxine, nicotinic acid, and clofibrate.⁷

Cholestyramine acts as a resin which binds bile acids in the gut, releasing sodium. This depletes the bile acid pool, which interferes with the absorption of cholesterol, promotes neutral sterol excretion, and although this promotes the increased liver synthesis of cholesterol, it shunts cholesterol into the formation

of bile acids. Initial dosage of cholestyramine is 4 gm four times daily, and a maintenance of 4-8 gm four times daily is recommended. Cholestyramine has been shown to decrease the absorption of phenylbutazone, phenobarbital, thyroid, digitalis, warfarin, and thiazide if concomitantly administered orally. Although there has been considerable improvement of the older formulation, cholestyramine is tolerated by only the most motivated of patients. The remainder of patients complain of constipation, bloating, nausea, and malodor and taste of the medication. In high dosages there may be symptoms of fat malabsorption.

A second hypocholesterolemic drug is d-thyroxine. This dextro-form of the naturally-occurring thyroxine increases cholesterol synthesis in the liver but promotes its use in the production of bile acids as well as promoting excretion of neutral sterols. Therapy is initiated with 1 mg daily and cautiously advanced to a level of 4-8 mg daily. This drug causes hypermetabolism which is its major side effect. Angina is common in patients with coronary artery disease on this medication. For this reason d-thyroxine has found limited use in the management of lipid abnormalities.

The oldest antihyperlipidemic drug is nicotinic acid. Although the action is unknown, nicotinic acid may work by blocking the epinephrine-dependent release of free fatty acids (FFA) by inhibition of cyclic 3'-5' amp accumulation. This reduces FFA as substrate for liver synthesis of VLDL. The initial dose is 100 mg orally three times daily, and this is increased to 1-3 gm three times daily with meals. About 85% of the patients on nicotinic acid have some gastric irritation, while Peptic Ulcer disease is considered a relative contraindication to the administration of this product. In addition, flushing, itching, hyperuricemia, glucose intolerance, and a reversible hepatotoxicity may occur.

Clofibrate is a drug which decreases the synthesis of the VLDL fraction. It is absorbed from the gut and circulates as chlorophenoxyisobutyric acid strongly bound to albumen where fatty acids and thyroxine are bound. Its action is also unknown but it is postulated to increase the excretion of neutral sterols and to inhibit cholesterol synthesis, block lipoprotein release from the liver and may accelerate VLDL removal. The initial dose is

0.5 gm to 1 gm orally twice daily and maintenance requires 1 gm twice daily. This drug potentiates warfarin and thyroxine. It probably has a similar displacing action on other protein-bound drugs like diphenylhydantoin from albumen-binding sights. It causes nausea in some instances and weight gain has been observed. In some patients this drug may cause agranulocytosis, myositis, alopecia, and hepatotoxicity, but these are not commonly observed side effects.

The other drugs which have been used and may still be considered adjunct therapy include neomycin and other exchange resins (colestipol or beta sitosterol). Other drugs used but generally unsatisfactory include estrogens, progestins and heparin. Halofenate is a product which shows some promise but is not yet available for clinical use.⁸

The Clinical Management

Each of the five phenotypic groups of hyperlipoproteinemias can often be recognized by its clinical setting which may point to the selection of the therapy regimen chosen. All patients should be first instructed in the appropriate diet and allowed to follow this for four to six weeks before initiating drug therapy. If diet alone does not result in lowering the cholesterol below 275 mg or the triglyceride below 250 mg, a hypolipidemic agent should be considered. (See Table I for summary.)

Type I is the rarest of the various hyperlipidemias. Its genetic pattern seems to be Mendelian recessive. In infants there may be eruptive xanthomas, hepatosplenomegaly, lipemia retinalis, foam cells in the bone marrow and colic. Adults also have abdominal pain which often suggests pancreatitis, hepatic or splenic infarct, or peritonitis. There can be fever, leukocytosis, anorexia, nausea, vomiting and occasionally diarrhea. The whole blood may have the appearance of "Cream of Tomato Soup" even in the fasting state. Lipoprotein lipase levels are low even post heparin administration. The dietary treatment is aimed at reduction of dietary fats, particularly those with long chains. The usual prescription is 25-35 gm of fat daily.* There is no available effective drug therapy.³

*A more detailed description of the various diets with sample menu plans is available on request from the office of Heart and Lung Informations, Department of Health, Education and Welfare, U.S. Public Health Service, Washington, D.C.

Type II is also known as familial hypercholesterolemia and as familial hyperbetalipoproteinemia. It is inherited as a dominant trait. Heterozygotes often have an increased risk of coronary artery disease and may also be present with tendon xanthomas, xanthelasma and arcus corneae.

The homozygous patient is indeed unfortunate with xanthomas often being present at birth, large pendulous xanthomas in older children and often an arthritis may be present. Glucose intolerance is no more prevalent than in the population at large. Dietary therapy is aimed at reducing cholesterol and includes low cholesterol foods with increased polyunsaturated fats. The goal is to limit cholesterol to less than 300 mg per day. Drug therapy usually begins with cholestyramine or other exchange resins as tolerated. If VLDL's are also elevated, clofibrate may be beneficial. A multiple drug regimen may be necessary to get the desired result. Ileal bypass has been utilized, but it is difficult to generate enthusiasm for this mode of therapy.

Type III is an uncommon disorder that is apparently recessively inherited. Atherosclerotic vascular disease is generally increased, and the association is marked with regard to peripheral vascular disease. The diagnosis is almost certain by the finding of planar xanthomas of the palms and digital creases or tubero-eruptive xanthomas at the elbow. These patients may also have tendon xanthomas, tuberos xanthomas of the buttocks, and arcus corneae. This disorder is associated with elevated uric acid levels. The diet is aimed at ideal body weight and low cholesterol intake. Often a recommendation for 20% protein, 40% fat, and 40% carbohydrates by calories is made. Polyunsaturated fats are preferred, and alcohol and concentrated sweets are limited. The primary drug used in this disorder is clofibrate; however, d-thyroxine and nicotinic acid are also used.

Type IV is a relatively common abnormality and may be found in families (as dominantly inherited), in relatives of patients with Type III and Type V, and sporadically. It also is seen in association with alcoholism and other metabolic diseases. Xanthomata are unusual; but arcus corneae, xanthelasma and rarely eruptive or tuberos xanthomata may be seen. This disorder is often associated with obesity.

TABLE I

Summary of Diets and Medications for Hyperlipoproteinemia

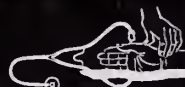
Phenotype	Chemical Observations	Clinical Associations	Diet	Drugs
I Chylomicronemia	Elevated chylomicrons cholesterol, triglycerides, chilled serum has cream over clear, post heparin lipase activity is low	Lipemia retinalis, eruptive xanthomata, hepatosplenomegaly, abdominal pain, occurrence rare, usually familial	Fat restricted to 25-35 gm daily. Type of fat not important. Alcohol is not recommended	None effective
II Familial	a) Elevated LDL, cholesterol, serum is clear b) As above with additional elevation in VLDL	Tendon and tuberous xanthomata, arcus, accelerated atherosclerosis, familial with milder heterozygous and more severe homozygous types—the latter is often expressed at birth	Cholesterol restricted to less than 300 mg/day, increased polyunsaturated fats, decreased saturated fats. Caloric restriction in IIb with obesity. Alcohol is not restricted.	1) Cholestyramine, 2) D-T ₄ 3) Nicotinic Acid may be used
III Broad Beta Disease	Cholesterol and triglyceride are elevated via increased levels of an abnormal VLDL, plasma is clear to cloudy	Usually familial in association with other lipoprotein types, accelerated atherosclerosis usually peripheral vascular disease xanthomas of palms, tuberous and tendon types, arcus, rare phenotype	Low cholesterol in a diet partitioned into 20% protein, 40% fat and 40% CHO by calories. Alcohol limited. Ideal body weight desired	1) Clofibrate 2) Nicotinic Acid 3) D-T ₄
IV Endogenous Hyperlipoproteinemia	Elevated VLDL's with triglycerides, plasma is clear to cloudy, uric acid is often abnormal as is GTT	Often familial, eruptive xanthomas, hepatosplenomegaly, accelerated atherosclerosis	Controlled CHO, calories. Alcohol is limited. Ideal body weight desired.	1) Clofibrate 2) Nicotinic Acid
V Mixed Hyperlipoproteinemia	Elevated VLDL's and chylomicrons, low to normal post heparin lipase activity, other abnormalities as in I and IV	As in I and IV together, often with severe symptomology	Restricted fat, CHO, with moderate restriction of cholesterol. Alcohol is not recommended.	1) Clofibrate 2) Nicotinic Acid

Dietary therapy is directed toward weight reduction in most cases and the avoidance of saturated fats. Carbohydrate intake should be controlled and alcohol limited. The drug primarily useful in Type IV is clofibrate; however, nicotinic acid may also be used.

Type V is a genetically heterogeneous disorder and is fairly common. Clinical diseases occur apparently in those with recessively inherited traits. The patient is usually obese, and eruptive xanthomas, hepatosplenomegaly, and acute abdominal crises similar to that in Type I may occur. As age advances glucose intolerance becomes more marked. The patient should restrict calories and maintain ideal body weight. Fats and carbohydrates are restricted, and alcohol is to be avoided. Drug treatment is by clofibrate and nicotinic acid, but neither is very beneficial.

References

1. *Coronary Risk Handbook*. American Heart Association, 44 East 23rd Street, New York, New York, 10010, 8-31, 1972.
2. Carlson, B.: Ischemic heart disease in relation to fasting values of plasma triglycerides and cholesterol. *Lancet* 1:865-868, 1972.
3. Levy, R.I., Fredrickson, D.S., et al.: Dietary and drug treatment of primary hyperlipoproteinemias. *Ann. Intern. Med.* 77:267-294, 1972.
4. Dietschy, J.M. and Wilson, J.D.: Regulation of cholesterol metabolism (3 parts). *N. Eng. J. Med.* 282: 1128-1138, 1179-1188, 1241-1249, 1970.
5. Ginsberg, O., et al.: Moderate alcohol ingestion and plasma triglyceride levels. *Ann. Intern. Med.* 80:143-149, 1974.
6. Sturdevant, R.A., et al.: Increased prevalence of cholelithiasis in men ingesting a serum cholesterol-lowering diet. *N. Eng. J. Med.* 288:1, 24-27, 1973.
7. Eder H.A.: Drugs used in the prevention and treatment of atherosclerosis, *The Pharmacological Basis of Therapeutics*, 4th ed., edited by Goodman, L.S., and Gilman, A., New York, The Macmillan Company, 766-771, 1970.
8. Hamilton, R.D. and Rees, E.D.: unpublished research.



The Hirsute Female

JAMES R. DZUR, M.D.,* AND RONALD D. HAMILTON, M.D.**

THE complaint of excessive or abnormal hair growth is not an unfamiliar one to the practicing physician. A significant number of females will present with this problem when their hair growth seems coarser, darker or more noticeable than that of their associates. From the very onset it must be stated that a certain percentage of these patients will appear normal to the experienced examiner. However, occasionally it is somewhat difficult to persuade these patients to believe this, when they are convinced that there is an abnormal appearance to the hair.

McKnight reported a 9% prevalence of hirsutism among female students attending the University of Wales.¹ All of these students were either Welsh or English, were detected on routine examination, and were personally aware of their problem on direct questioning. The non-European students were not included because it has been recognized for many years that there are marked racial and familial differences in body hair growth. In general the Mediterranean and Semitic peoples are hairier than those of Nordic or Anglo-Saxon heritage. Caucasians are usually hairier than Negroes and the Mongolian races are the least hairy. In order to systematically evaluate the hirsute female it is important to be aware of these generalities and to have some basic understanding regarding the types and distribution of body hair.

Types And Distribution Of Hair

Males and females of all races are born with the same number of hair follicles that they will have in adult life. Perhaps one of the few exceptions to this is an increase which may

occur after severe or prolonged trauma which is usually localized. The follicles are formed between the second and fifth months of fetal life as epithelial downgrowths. Since the number of follicles is constant, the wide range of hair patterns is thought to be dependent on the type of hair present and the density of the follicles.²

There are three basic types of hair: 1) lanugo or baby hair; 2) vellus hair, which is soft, unmedullated and usually not pigmented; and 3) terminal hair, which is long, coarse, medullated and pigmented. Hair in man goes through cycles of growth, molting and resting stages in an asynchronous fashion. These growth stages are known as telegen, the resting stage; anagen, the growth stage; and catagen, the stage of regression. As puberty and adulthood are reached, vellus hair is replaced by terminal hair which is usually pigmented. The usual sequence of this conversion is the pubic region, axillae, legs, thighs, forearms, abdomen, buttocks, chest, arms and shoulders. Once terminal hair growth has been established, it is not likely to change in the normal individual. An exception to this is some replacement of terminal hair by vellus in males causing frontal recession and the characteristic change in the facial outline.

Hair patterns may be classified as: 1) non-sexual hair (eyebrows, eyelashes, forearm and lower leg hair which is not hormone dependent); 2) ambosexual hair which is dependent on female levels of hormones (lower pubic triangle, some extremity and axillary hair); and 3) male sexual hair which is dependent on male levels of hormone (upper pubic triangle, beard, ears, body hair and nasal tip). In the male, hair in the pubic region in the majority of patients will have an acuminate upper border and in the female a horizontal border. In sum-

*Present address, Cape Girardeau, Mo.

**University of Kentucky College of Medicine, Lexington

mary, there is a wide variation of hair patterns in both males and females depending on genetic and ethnic factors, the ability of the hair follicles to respond to hormones, and the age of the patient.³

Hair growth in females depends on the amount of biologically active androgen and the sensitivity of the end organ (hair follicle). The adrenal glands and the ovaries are considered to be the usual source of androgens. The adrenal glands produce a greater quantity of androgens than the ovary in most circumstances. However, ovarian androgens generally contain a larger proportion of active compounds. Similar to other hormones, androgens circulate in the blood mostly bound to beta-globulin and to a lesser degree albumin. Here also it is thought that the relatively small "free" fraction is the physiologically active component. In addition to this, the liver and skin are capable of producing active androgens from precursors. Therefore, in the skin, androgen excretion products might appear that are not represented in the circulating active androgens.⁴⁻⁷ In the hirsute female the androgens which promote growth of the hair follicle include dehydroisoandrosterone, dihydrotestosterone, and androstenediol (and perhaps others not yet identified) which are similar to those in normal men.⁸ Because of this certain women may be predisposed to increased hair growth.

To avoid further confusion, mention should be made of the differentiation between hypertrichosis, which is increased hair growth in appropriate places (pubic region, head, extremities, and back) and hirsutism, which is hair growth in inappropriate places (face, chest, and upper abdomen). Both terms have been used in the literature, oftentimes interchangeably. The term virilization is generally reserved for hirsutism associated with other features of masculinization such as deepening of the voice, temporal balding, clitoral hypertrophy, acne, thick and oily skin and amenorrhea (or oligomenorrhea).

Evaluation

A careful history and physical examination should be performed on all patients with obvious hirsutism or virilization. Constitutional or genetic hirsutism can often be suspected from this alone. From the history it is extremely important to establish the age of onset of the

hirsutism. If it occurred coincident with puberty, hypothalamic, adrenal and ovarian sources should be considered since they are greatly augmented at this time. Concomitant menstrual irregularities might suggest an ovarian defect. If the condition has been present for a number of years, a tumor would be less likely.⁹ Some changes in hair growth may occur during pregnancy¹⁰ and in certain other non-endocrine disturbances such as porphyria. Diphenylhydantoin,¹¹ diazoxide,¹² hexachlorobenzene, cobalt (roncovite)¹³ and androgen containing medications will increase hair growth in some individuals.

The differential diagnosis of hirsutism should include at least the following:

- a) adrenal causes—congenital adrenal hyperplasia, benign and malignant tumors of the adrenal gland and adrenal hyperplasia.
- b) ovarian causes—Stein-Leventhal Syndrome (polycystic ovary syndrome) & ovarian tumors (arrhenoblastomas, adrenal rests and hilar cell tumors).
- c) variance of the polycystic ovary syndrome (hyperthecosis ovarii, Achard-Thiers Syndrome).
- d) drugs
- e) "idiopathic"

Adrenal adenomas, carcinomas and cases of adrenal hyperplasia can usually be suspected in patients with hirsutism, thin skin, easy bruisability, "moon faces", superclavicular fat pads, truncal obesity, muscle wasting, hypertension and diabetes. A marked degree of virilization is more commonly associated with carcinoma of the adrenal gland. Congenital adrenal hyperplasia is primarily a condition seen in infants and children. Pubertal onset of congenital adrenal hyperplasia is supported by only a few well-documented cases in the literature and these patients have been very short and severely virilized.^{14,15}

The Stein-Leventhal Syndrome is the most frequent cause of hirsutism of ovarian origin. This syndrome is characterized by enlarged polycystic ovaries, menstrual irregularities and, in over 60% of cases, there is some virilization or hirsutism. This diagnosis can often be considered as a possibility from the findings on pelvic examination. Patients with arrhenoblastomas are often young and have a male habitus, hirsutism and other features of virilization. Hypertrichosis ovarii is a condition of

undetermined etiology characterized clinically by virilization and sometimes amenorrhea. Achard-Thiers Syndrome is the name given to the combination of hirsutism associated with diabetes mellitus and occasionally obesity and hypertension.¹⁶ It is a rare entity with each of these problems having an onset at a different time in life. There is no demonstrable defect in androgen metabolism and no effective treatment is known at the present time.

Over the last several years a successive series of stimulation and suppressive tests have been developed in an attempt to differentiate adrenal from ovarian androgen production.¹⁷ Appropriate base line studies usually include a 24 hour urine collection for 17-ketosteroids (17-KS) and 17-hydroxycorticosteroids (17-OHCS), plasma testosterone, plasma cortisol levels (8:00 a.m. and 4:00 p.m.), and thyroid function studies. Plasma cortisol values are usually elevated and the diurnal rhythm disappears in adrenal hyperplasia and adrenal tumors (also occurs with ectopic ACTH syndrome). If congenital adrenal hyperplasia is being considered, the urine collection should include pregnanetriol and tetrahydrodeoxycortisol (THS) determinations. If these results are abnormal the standard ACTH stimulation and dexamethasone suppression tests should be performed. These tests are usually quite adequate in excluding adrenal abnormalities in obese and hirsute individuals. In response to the standard ACTH test normal individuals will show a three- to five-fold rise in 17-OHCS. Approximately 50% of patients with benign adrenal tumors and 90% of adrenal carcinomas are unresponsive to ACTH infusions. Patients with adrenal tumors show essentially no suppression with dexamethasone, whereas normal individuals have almost a complete suppression. Those patients with hyperplasia show a partial suppression on low dose and most of them decrease by 50% of their control value on the high dose.

Ovarian stimulation tests using human chorionic gonadotropic (HCG) while continuing dexamethasone suppression of the adrenal gland has given inconsistent results and is of little value in predicting the source of the androgen. Analysis of testosterone values before and during the above stimulation and suppression tests does not seem to contribute any additional information of differential importance.

If an adrenal source of androgen production is suspected an attempt should be made to visualize the adrenal glands by radiological techniques (IVP, tomograms, angiography or scan). In situations where the ovaries are being considered, gynecography, laparoscopy or laparotomy should be considered. A recent technique of obtaining blood for testosterone levels from the adrenal and ovarian veins by a percutaneous catheter shows promise as a differential method. Follow-up studies are now in progress for further evaluation of this procedure. In a recent study, one-third of hirsute females which showed a good suppression by dexamethasone were demonstrated by percutaneous catheterization of the ovarian and adrenal veins to have overproduction of ovarian androgens only. Therefore, it can be concluded that dexamethasone can also suppress ovarian androgens in some instances.¹⁸

It is now recognized that testosterone and 17-KS excretions do not measure all of the active androgen products. Equally important they do not measure turnover rates, peripheral conversion rates, or the sensitivity to androgens or androgen precursors. Additional tests are now being developed and will undoubtedly contribute in the differential diagnosis of this difficult problem.

Treatment

If a virilizing tumor, or surgically remedial source of the excess androgen is found, marked regression of hair growth will occur in most cases following surgery. The problem of congenital adrenal hyperplasia can, in most cases, be managed satisfactorily with p.o. cortisone preparations which are directed at suppressing ACTH levels. This results in a decrease of 17-hydroxyprogesterone (and its precursors), preventing them from being converted to androstenedione and other androgenic products.

As was implied earlier, a significant number of cases will have to eventually be labeled "idiopathic" in that no definite pathological entity can be demonstrated to explain the basis for the hair growth. If the historic pattern suggests the polycystic ovary syndrome, a trial of hormonal therapy should be given. Estrogens and progestogens are employed individually or as one of the sequential combinations. Estrogens may produce a beneficial effect by increasing androgen binding (due to an increase in

beta-globulin), by inhibiting gonadotrophins (resulting in indirectly inhibiting the ovary) and by directly affecting the metabolism of the hair follicle. Progestogens may displace active androgens at the skin binding site. They also have some gonadotropic suppressing activity.^{9,19} There is an occasional patient that will develop increased hair growth on this treatment program. However, it does warrant a trial and the results may not be apparent for several months. There are now available several anti-androgen compounds (cyproterone acetate and 17-alpha-methyl beta-nortestosterone), but these are still considered to be investigational drugs.²⁰

If reassurance and support are not adequate, and the patient does not have a beneficial result from other treatment programs, local modalities of treatment should be tried. Bleaching is oftentimes the most satisfactory treatment for vellus hair growth on the face and elsewhere. Commercial preparations are available and they are harmless to the average skin. Repeated bleaching also tends to damage the hair to some extent, thus causing it to break off. Shaving is oftentimes quite satisfactory and there is no scientific evidence that it affects the rate of hair growth. Once started it usually has to be carried out frequently in order to avoid the bristly feeling. Where the growth is not extensive, plucking with tweezers may be the method of preference. Some beauty salons offer a waxing procedure where a layer of wax is applied to the skin, allowed to cool, then stripped off in the direction of hair growth. Since the hairs are plucked out below the surface the results are sometimes longer lasting. Local abrasives such as pumice may be used for control of localized hair growth. There are now a number of chemical depilatories on the market most of which contain alkaline agents which break down the structure of hair. Caution must be taken in order to avoid skin irritation.

Electrolysis probably provides the best long-term results when carried out by an experienced

professional operator. A great deal of technique is necessary in order to locate the papilla, and the direction of the hair follicle. The amount of current to be used is also a critical factor and oftentimes more than one treatment will be required for permanent destruction.

References

1. McKnight, E.: The prevalence of "hirsutism" in young women. *Lancet* 1:410-413, 1964.
2. Rook, A.: Endocrine influences on hair growth. *Brit. Med. J.* 1:609-614, 1965.
3. Garn, S.M.: Types and distribution on hair in man. *Ann. N.Y. Acad. Sci.* 53:498-507, 1951.
4. Baillie, A.H., Calman, K.C., and Milne, J.A.: Histochemical distribution of hydroxysteroids, dehydrogenases in human skin. *Brit. J. Derm.* 77:610-616, 1965.
5. Gomez, E.C., and Hsia, S.L.: In vitro metabolism of testosterone-4-¹⁴C and delta androstene-3, 17 dione-4-¹⁴C in human skin. *Biochem.* 7:24-32, 1968.
6. Kim, M.H., and Herrmann, W.L.: In vitro metabolism of dehydroisoandrosterone sulfate in foreskin, abdominal skin and vaginal mucosa. *J. Clin. Endocrinol.* 28:187-191, 1968.
7. Rondone, E.L.: Testosterone metabolism by human male mammary skin. *Steroids* 7:489-504, 1966.
8. Thomas, J.P., and Oahe, R.J.: Androgen metabolism in the skin of hirsute women. *J. Clin. Endocrin. Met.* 38:19-22, 1974.
9. Karp, L., and Herrmann, W.L.: Diagnosis and treatment of hirsutism in women. *Obstet. & Gynecol.* 41:283-294, 1973.
10. Stoddard, F.: Hirsutism in pregnancy. *Am. J. Obst. and Gynec.* 49:417-422, 1945.
11. Anticonvulsants: AMA Drug Evaluations, Second Edition 1973, Publishing Sciences Group, Inc., Acton, Mass. Chapter 31, pp. 345-358.
12. Baker, L., Kaye, R., Root, A.W., et. al.: Diazoxide treatment of idiopathic hypoglycemia of infancy. *J. Pediatrics.* 71:494-505, 1967.
13. Greenblatt, R.B.: Diagnosis and treatment of hirsutism. *Hosp. Prac.* 8:91-98, 1973.
14. Faglia, G., Travaglini, P., Neri, V., et. al.: Occurrence of a virilizing syndrome with 21-hydroxylase deficiency after pregnancy. *J. Clin. Endocrinol.* 29:1325-1329, 1969.
15. Gabrilove, J.L., Sharma, D.C., and Dorfman, R.I.: Adrenocortical 11 beta-hydroxylase deficiency and virilization first manifest in the adult women. *N. Engl. J. Med.* 272: 1189-1194, 1965.
16. Greenblatt, R.B., Dominquez, C.J., and Mahesh, V.B.: Achard-Thiers Syndrome. *The Hirsute Female*. Edited by R.B. Greenblatt. Springfield, Ill., Charles C. Thomas, 1965, pp.251-267.
17. Ettinger, B., VonWerder, K., Thenaers, G.C., et al.: Plasma testosterone stimulation-suppression dynamics in hirsute women. *Am. J. Med.* 51:170-175, 1971.
18. Ettinger, B., Goldfield, E.B., Burrill, K.C., et. al.: Plasma testosterone stimulation-suppression dynamics in hirsute women. *Am. J. Med.* 54:195-200, 1973.
19. Jaffe, R.B., and Midgley, A.R.: Current status of human gonadotropin radioimmunoassay. *Obstet. Gynecol. Surv.* 24:200-213, 1969.
20. Nelson, R.M., and Rakoff, A.E.: Hirsutism and treatment by an androgen antagonist. *Obstet. Gynecol.* 36:748-752, 1970.



GRAND ROUNDS



The University of Kentucky College of Medicine

This Journal feature will be presented alternately by the University of Louisville and the University of Kentucky Departments of Medicine and Departments of Surgery. We hope to have these features revolve around subjects of immediate practical interest to the practicing physician; and, for those of us not able to attend grand rounds in the teaching centers as often as we might, we hope this will represent a bit of a refresher course.

Acute Bacterial Diarrhea

ACUTE diarrheal disease of bacterial origin is a major cause of morbidity and mortality throughout the world, especially in underdeveloped countries.¹⁻³ One has only to recall the hundreds of thousands of deaths due to cholera and shigellosis that have occurred in India, Pakistan, and in Central America to appreciate the importance of these diseases.

While we are more fortunate, acute diarrheal disease is still a significant cause of morbidity and mortality in the U.S. In fact, acute diarrheal disease is second only to the common cold as a cause of man/days lost from work.^{2,3} As a specific example of the impact of diarrheal disease in the U.S., the reported incidence of non-typhoidal salmonellosis is approximately 10 cases per 100,000 population, and this is thought to represent only approximately 1% of the total. Therefore, it has been estimated that approximately 2 million cases occur each year in the U.S.⁴ The mortality rate of hospitalized cases is approximately 1-2% but is considerably higher in infants (6%) and in patients over the age of 50 (10-15%).⁴ Thus, the acute bacterial diarrheas remain a significant problem in the U.S.

Causes of Acute Diarrhea in the U.S.

Statistics as to the incidence of various causes of diarrhea are very meager and difficult to obtain. However, when foodborne outbreaks of diarrhea are intensively investigated, the following pattern emerges. In 1969, 371 outbreaks of foodborne disease involving 23,563 persons were reported to the C.D.C. in Atlanta, Georgia. Bacterial agents accounted for 66% of cases, chemicals 7%, parasitic 3%,

viral 2%, and unknown causes for 22%. Of those caused by bacteria *Staphylococcus aureus* accounted for 25% of the total, *Clostridia perfringens* 18%, salmonella 13%, shigella 3%, *Clostridia botulinum* 3%, and other bacteria 4%.⁵

Since these statistics are for foodborne outbreaks which were intensively studied and do not include sporadic cases, these figures may not represent the pattern of acute diarrhea occurring in the population at large. It has been well documented that with currently available laboratory tests, a specific cause of pathogen can be found in only 20% of cases of acute diarrhea entering the hospital.¹⁻³ Thus 80% of patients remain undiagnosed. Fortunately, in most of these cases the disease is self-limited and spontaneously remits in a short period of time. It is thought that the bulk of these undiagnosed cases are either due to viruses and/or to bacteria which we cannot distinguish from normal enteric flora, i.e. the enterotoxin producing *E. coli*. In fact, in one recent study of infants with diarrhea entering a Chicago hospital, approximately 70% of cases were caused by toxigenic *E. coli*. These cases were diagnosed with the use of various animal tests.⁶

Since significant advances have been made in our understanding of the acute bacterial diarrheas—especially those caused by *E. coli*, salmonella, and shigella—the rest of this discussion will be concerned with these disease entities.

Normal Intestinal Fluid Balance and General Mechanisms of Diarrhea

In a 24-hour period, the GI tract is exposed to approximately 8-10 l of isotonic fluid from the diet and the GI secretions. The source of

From the Department of Medicine, University of Kentucky College of Medicine, Lexington

this fluid is: diet, 2 l, saliva, 1 l, gastric juice, 2 l, bile, 1 l, pancreatic juice, 2 l, and small intestinal fluid, 1 l. Of this 8-10 l entering the small bowel only approximately 1-2 l enters the colon and only 100-200 ml appears as feces.² The bulk of the fluid, 90-95%, is absorbed in the small intestine and the remainder by the colon, this latter organ serving as a final volume regulator. By colonic perfusion studies in man, it has been estimated that the colon can absorb a maximum of approximately 2 l per day.²

Theoretically, diarrhea can result from any one or a combination of these mechanisms: a) decreased fluid and electrolyte absorption, b) increased fluid and electrolyte secretion, c) abnormal intestinal permeability, d) large amounts of nonabsorbable, osmotically active substances in the lumen of the bowel exerting an osmotic effect on water, and e) abnormal intestinal motility.

The volume and composition of the resultant diarrhea depends on which of these factors are involved and in which region of the intestine, small or large intestine.^{2,3}

Pathogenesis of Acute Bacterial Diarrhea

The acute bacterial diarrheal disorders can be divided into two categories on the basis of the mechanisms by which they cause diarrhea. These categories are the so-called "toxigenic" and "invasive" diarrheas.^{2,3} A general understanding of the mechanisms involved helps to clarify the various clinical pictures and presentations. Furthermore, knowledge of the mechanisms allows us to explain the presence or absence of various historical, physical, and laboratory features and helps the clinician to assign a particular case to the "toxigenic" or "invasive" category and help make a specific diagnosis.

In the so-called "toxigenic" diarrheas, diarrhea is the result of a toxin, called enterotoxin, elaborated by the bacterium which interferes with fluid and electrolyte transport in the small intestine. The prototype of this category is cholera but others causing disease by this mechanism include some strains of *E. coli*, *Staphylococcus aureus*, and *Clostridia perfringens*.³

In the "invasive" diarrheas, the bacteria actually invade the intestinal mucosa and this invasive process somehow causes the loss of fluid. The prototypes of this mechanism are the shigellae and salmonellae.¹⁻³

In the "toxigenic category," the organisms colonize and proliferate within the small intestine and elaborate an enterotoxin. They do not invade the mucosa and cause little, if any, morphologic damage. The enterotoxin is absorbed to the small intestinal epithelial cells stimulating a mucosal enzyme, adenyl cyclase, which leads to the accumulation of intracellular cyclic AMP. The increased levels of cyclic AMP somehow result in the active secretion of fluid and electrolytes by the epithelium. Colonic function is normal. In the cases of staphylococcal diarrhea, the enterotoxin, not the organism, is ingested and the same sequence occurs. Thus, in the "toxigenic" category, the diarrhea is due to small intestinal secretion of salt and water, the volume of which overwhelms the absorptive capacity of the colon.^{2,3} Since the organisms do not invade the intestine and only involve the small intestine, one would not expect the patients to manifest fever, bloody stools, tenesmus, significant leukocytosis, or polymorphonuclear leukocytes in the stool smear. Furthermore, sigmoidoscopic findings should be normal.

In the "invasive" category—salmonellae, shigellae, and some *E. coli*—enterotoxins have not been described (with the single exception of *Shigella dysenteriae* type 1 and the physiologic significance of this toxin is in doubt). These organisms colonize the colon and perhaps the small intestine as well. The organisms invade the mucosa, causing acute inflammation and sometimes ulceration, and somehow fluid production ensues. The site of fluid production is primarily the colon, but in severe cases the small intestine may also be involved. The biochemical mechanisms of diarrhea are unclear but preliminary evidence suggests that the mucosal adenyl cyclase-cyclic AMP system—as in the "toxigenic" diarrheas—may be involved. Thus, in the "invasive" category, the diarrhea is primarily a colonic diarrhea and since the organisms invade the mucosa and cause an acute inflammatory reaction, one would expect such patients to manifest fever, cramps, tenesmus, leukocytosis, and many polymorphonuclear leukocytes in the stool smear. The patient may or may not have bloody stools or positive sigmoidoscopic findings depending upon the severity of the colonic process.

One final point worthy of emphasis: it is possible that the mucosal adenyl cyclase-

cyclic AMP system may be the final common biochemical pathway for many diarrheal disorders. If specific agents can be found to prevent activation of this system or turn it off after it has been activated, rational therapy would be at hand to prevent or control the diarrhea.

Shigellosis

In the U.S., shigellosis is primarily a disease of children, but certainly occurs in adults as well. The only natural hosts for this disease are man and monkeys. Thus, animal reservoirs are not important in the chain of contagion and transmission occurs from person to person or via contaminated water supplies.

The classical picture of shigellosis is a patient who presents with fever, bloody diarrhea, abdominal cramps, and tenesmus. While this is the typical picture, a sizable percentage of patients, approximately 30%, will not have bloody diarrhea or dysentery but watery diarrhea alone.⁷ In one recent outbreak among adults involving 700 cases, all patients had only watery diarrhea without dysentery.⁸ Thus, the absence of dysentery or a bloody stool certainly does not rule out the possibility of shigellosis.

In the usual case of shigellosis, therapy is merely supportive. Intravenous fluids are not usually required since the volume lost is usually small and oral fluid therapy is generally adequate. However, in the infant or unusually severe case, IV fluids may be required. Use of agents like Kaopectate, Lomotil, and narcotics are unnecessary and usually ineffective. The rationale for using Lomotil and other narcotic agents is to slow down intestinal motility and hopefully increase fluid absorption. Evidence to support this rationale is very meager. It must be remembered that with invasive bacteria, if one paralyzes intestinal motility, one might enhance mucosal invasion and worsen the disease. In fact, there is some evidence that this does indeed occur with Lomotil therapy of shigellosis.⁹ However, if abdominal cramps and tenesmus are severe, narcotics might be helpful. Since the disease is usually self-limited and clears in 48-72 hours, this kind of therapy is usually not required.

The use of antibiotics in shigellosis is controversial.^{10,11} Although a number of double blind studies have demonstrated that antibiotics shorten the clinical course and the period of

fecal excretion of the organism, most authorities do not use antibiotics in the usual case. The reasons for this include the increasing evidence of multiple antibiotic-resistant strains, the likelihood that the use of antibiotics increases the incidence of such strains, and the fact that the disease is usually self-limited. An excellent discussion of the pros and cons of antibiotic usage in shigellosis has recently been published.¹¹

Salmonellosis

As stated above, salmonellosis is endemic in the U.S. because of the ubiquitous occurrence of this organism. The vehicle of infection is usually contaminated animal products, i.e., poultry, swine, eggs, milk, etc. The following data emphasizes the magnitude of the problem. In a survey done a few years ago in Massachusetts, public health officials purchased frozen chicken in a variety of supermarkets and found 40% of the chicken to be contaminated with salmonella.¹² Thus, the problem facing us is immense, and salmonellosis is likely to remain a major problem.

There are various clinical pictures of salmonellosis: enteric fever, septicemia, and gastroenteritis. Approximately two-thirds of all cases occurring in the U.S. are manifest as gastroenteritis with fever, abdominal cramps, and diarrhea. The usual course of illness lasts 3-5 days with spontaneous recovery. The commonest organism is *S. typhimurium*.¹³

Of interest in salmonellosis is the asymptomatic or chronic carrier state. The mean duration of fecal excretion of the organism is 7-10 days with some cases shedding salmonellae for up to one month. Approximately 1% will shed the organism for a year or more, and antibiotic therapy is ineffective in curing this carrier state.

A number of disease conditions are known to predispose to salmonellosis. These include the following: a) any condition with reduced gastric acidity, b) alteration of normal intestinal flora especially after antibiotic therapy, c) hemolytic anemias, especially sickle cell disease and d) disorders of immunity, especially leukemias, lymphomas, carcinomatosis, and immuno-suppressive therapy.¹⁴

As far as the therapy of salmonellosis is concerned, the role of antibiotics is much more clear cut than in shigellosis. Most authorities agree that the usual case of salmonellosis with uncomplicated gastroenteritis should not be

treated with antibiotics. This opinion is based on data gathered from a number of controlled studies which demonstrate that antibiotic therapy of salmonella gastroenteritis a) does not shorten the course of the disease, b) significantly prolongs the fecal excretion of the organisms, and c) increases the number of antibiotic resistant strains.¹⁵ In practice, antibiotic therapy of salmonellosis is reserved for patients with enteric fever, septicemia or focal lesions. In addition, in the patient with salmonella gastroenteritis with severe diarrhea, spiking fever and leukopenia, who looks quite sick, stool and blood cultures should be taken and antibiotics begun pending the culture results.

E. coli Diarrhea

Pathogenic *E. coli* are definite causes of acute diarrhea throughout the world and especially in children. It may also be responsible for traveler's diarrhea.^{6,16} *E. coli* can cause diarrhea by either the "toxigenic" or "invasive" mechanism¹⁶ but to date, strains are either toxigenic or invasive. As mentioned above, approximately 80% of cases of acute diarrhea are undiagnosed and there is accumulating evidence that enteropathogenic *E. coli* may be responsible for a sizable proportion of this undiagnosed group.^{3,6} A major unsolved problem is how to detect and identify enteropathogenic *E. coli*. The usual stool culture will always grow *E. coli* since it is a normal part of our colonic flora. Unfortunately, there are no culture methods to distinguish pathogenic from non-pathogenic strains. *E. coli* serotyping is of no value since it has been shown that many "non-pathogenic" serotypes can cause disease and that many so-called "enteropathogenic serotypes" are harmless. The only available methods to identify enteropathogenic strains involve the use of animal models or tissue culture methods.^{3,6} These methods are difficult to perform, time-consuming, and expensive, and therefore not suitable for routine clinical use. This problem is currently under intensive study and hopefully a simple test will be available in the near future. Thus, diagnosis can only be presumptive and treatment is supportive.

Approaches to the Patient with Acute Diarrhea

The infective dose of the various bacterial pathogens for healthy American adults varies markedly with the organism¹⁷: shigella 10-100

organisms, salmonella 100,000 organisms, and *E. coli* 100 million organisms. Since as few as 10-100 shigella organisms can be infective for man, it is easy to see why person-to-person spread is the main route of transmission, why explosive outbreaks and epidemics occur, and why isolation procedures must be strict. With salmonella and *E. coli*, a much larger inoculum is required and therefore the usual route of transmission is food or water where large numbers of organisms can be ingested.

When faced with a patient with acute diarrhea, various clinical features and a simple bedside laboratory test can be very useful in distinguishing infectious from non-infectious diarrhea and "toxigenic" from "invasive" diarrheas. In any case of diarrhea of acute onset, infectious agents must be sought. The following clinical features should heighten one's suspicion as to an infectious etiology: a) fever, b) abdominal cramps, c) tenesmus, d) bloody stools, or e) leukocytosis or leukopenia. In addition to bacteria, some of these features may be a result of diarrhea due to parasites or viruses.

A simple laboratory test can help make a specific diagnosis, the presence or absence of polymorphonuclear leukocytes in a stained stool smear.¹⁸ The presence of polys in the stool smear suggests an invasive or inflammatory disorder, i.e., salmonellosis, shigellosis, amebiasis, ulcerative colitis, or regional enteritis. The absence of polys suggests a viral etiology, toxigenic *E. coli*, or other non-infectious causes, i.e., functional or hormonally-mediated diarrhea. Thus, the presence of polys in the stool smear is usually indicative of bona fide disease; these patients should be thoroughly evaluated.

R. A. GIANNELLA, M.D.

References

1. Grady, G.F., and Keusch, G.T.: Pathogenesis of bacterial diarrheas. *N. Engl. J. Med.* 285:831, 891, 1971.
2. Phillips, S.F.: Diarrhea: A current view of the pathophysiology. *Gastroenterology* 63:495, 1972.
3. Banwell, J.G., and Sherr, H.: Effect of bacterial enterotoxins on the GI tract. *Gastroenterology* 56:467, 1973.
4. Aserkoff, B., Schroeder, S.A., and Brachman, P.S.: Salmonellosis in the U.S.—A five year review. *Amer. J. Epidemiol.* 92:13, 1970.
5. Gangarosa, E.J., and Donado, J.A.: Surveillance of foodborne disease in the U.S. *J. Infect. Dis.* 122:354, 1970.
6. Gorbach, S.L., and Khurana, C.M.: Toxigenic *E. coli*: A cause of infantile diarrhea in Chicago. *N. Engl. J. Med.* 287:791, 1972.
7. DuPont, H.L., Hornick, R.B., Dawkins, A.T., et. al.: The response of man to virulent shigella flexneri 2a. *J. Infect. Dis.* 119:296, 1969.
8. Center for Disease Control: Shigellosis on a Caribbean cruise ship. *Morbidity and Mortality Weekly Rep.* 22:217, 1973.

9. DuPont, H.L., and Hornick, R.B.: Adverse effects of Lomotil therapy in shigellosis. *JAMA* 226:1525, 1973.
10. Weissman, J.B., Gangarosa, E.J., and DuPont, H.L.: Changing needs in the antimicrobial therapy of shigellosis. *J. Infect. Dis.* 127:611, 1973.
11. Weissman, J.B., Gangarosa, E.J., DuPont, H.L., et. al.: Shigellosis: To treat or not to treat. *JAMA* 229:1215, 1974.
12. Wilder, A.N., MacCready, R.A.: Isolation of *Salmonella* from poultry. *N. Engl. J. Med.* 274:1453, 1966.
13. Black, P.F., Kunz, L.F., and Swartz, M.: Salmonellosis: A review of some unusual aspects. *N. Engl. J. Med.* 262:811, 864, 921, 1960.
14. Bennett, I.L., and Hook, E.W.: Some aspects of salmonellosis. *Ann. Rev. Med.* 10:1, 1959.
15. Editorial: Antibiotics in gastroenteritis. *Lancet* 2:1169, 1970.
16. DuPont, H.L., Formal, S.B., Hornick, R.B., et. al.: Pathogenesis of *E. coli* diarrhea. *N. Engl. J. Med.* 285:1, 1971.
17. DuPont, H.L., and Hornick, R.B.: Clinical approach to infectious diarrheas. *Medicine* 52:265, 1973.
18. Harris, J.C., DuPont, H.L., and Hornick, R.B.: Fecal leukocytes in diarrheal illness. *Ann. Int. Med.* 76:697, 1972.

Notice To Contributors

Members of the Kentucky Medical Association reading papers before other organizations are asked to submit their papers to *The Journal* for consideration by the Editors for publication. Detailed instructions to contributors appear in the Scientific Section of *The Journal* under Manuscript Memos. Please forward any papers to:

Paul C. Grider, Jr., M.D., Scientific Editor
 The Journal of the Kentucky Medical Association
 3532 Ephraim McDowell Drive
 Louisville, Kentucky 40205



MATERNAL MORTALITY



From the Files of the KMA Maternal Mortality Study Committee

—Edited by John W. Greene, Jr., M.D.

CASE 18-71. This 23-year-old single Negro, Gravida 1, EDC 12/15/71, was admitted on November 14, 1971 at 2:30 a.m. She had been seen 10 days previously in a clinic and was reported to have had mild elevation of her blood pressure for which she was given diuretics. Her sister stated she had had several generalized convulsions in the preceding few hours. Blood pressure was 180/110 and she had edema of her feet and ankles. Temperature was 99.4°. Her physician was notified and prescribed Hydrodiuril 50 mg orally but did not see her. At 4:15 a.m. the patient was still in the emergency room and had another convulsion lasting 45 seconds. Her physician was notified and she was given 100 mg of Dilantin IM. Seizures were recorded at 5:45 and 8:10 a.m. At this time the patient was given 5 mg of Valium IV. The patient was reported to be confused and unable to cooperate. At 9:30 a.m. the patient again received 100 mg of Dilantin IM, and had been at the hospital 7 hours when her physician finally arrived to see her.

Only 15 cc of urine was obtained by catheterization since admission. At 9:40 a.m. the patient had another grand mal seizure lasting one minute and received 10 mg of Valium IM. The BUN was 17, serum total proteins 16.7 at this time. Neurosurgical consult was obtained and the patient was seen at 10:15 a.m. after having had another seizure. Fetal heart tones were not audible at this time. Skull films were taken and reported as normal. A supine chest film was negative. Lumbar puncture revealed clear spinal fluid without abnormalities. A naso-gastric tube was inserted. The patient was to have vital signs monitored every four hours and Dilantin 100 mg and phenobarbital 60 mg every six hours.

An obstetrician was called to see the patient

at approximately 1:30 p.m. and made the diagnosis of eclampsia. She was given 10 gm of magnesium sulfate IM when her blood pressure was found to be 190/100, pulse 120, respiration 32, and temperature 101.4°. Reflexes were 4+ bilaterally. The patient had now had 12 or 13 convulsions. At 3:00 p.m. a chest X-ray showed congested right upper lung field, thought to be secondary to aspiration. Pelvic examination revealed the cervix to be closed and there was some vaginal bleeding. The reflexes were still markedly hyperactive but there was no clonus. The patient was treated with Lanoxin and transferred by the obstetrician to another hospital. She arrived at 4:00 p.m. on November 14 with a nasotracheal tube in place with assisted respiration via an ambu-bag.

Her past medical history, social history, and review of systems were non-contributory. She responded only to deep pain. Her blood pressure was 190/120, pulse 140, rectal temperature 101.4°. Fetal heart tones were not audible. There were ronchi throughout the right lung field but no rales. The naso-tracheal tube was in place. Her heart was normal. The uterus was palpable two fingers breadths above the umbilicus. The cervix was closed and uneffaced. She had no apparent edema and was hyperflexic. Serum sodium was 131, potassium 4.4, carbon dioxide 18, chloride 94, hematocrit 40.6, hemoglobin 13.0, white count 24,400, and urine 2 + protein, 50-100 RBC's and 1-5 WBC's.

Following admission the patient was assisted with positive pressure ventilation and was given 40 mg of Lasix IV through an intravenous infusion line. Blood gases at 4:30 p.m. were pH 7.39, pCO₂ 25, pO₂ 340. BUN was 20 and creatinine 3.9. The patient had to be maintained on a respirator. She made no respiratory effort herself. Urine output during the first two

hours was 10 ml per hour. An amniotomy was performed and an oxytocin induction started. At 2:30 a.m. on November 15, her hematocrit was 34, blood gases were pH 7.375, $p\text{CO}_2$ 31.5, $p\text{O}_2$ 87 with 95% saturation. At 7:05 a.m. on November 15 the patient delivered a 3 lb 7 oz stillborn female by low forceps without anesthesia. Following delivery she could respond to verbal stimuli and tolerated periods of two-to-three hours off the respirator. At 8:00 a.m. on the 15th her hematocrit was 30.

By the afternoon of the 15th the patient was transferred to the intensive care unit. Medical and neurological consults were obtained. The patient remained comatose responding only to deep pain. Blood gases obtained the evening of November 15 showed a pH of 7.15, $p\text{O}_2$ 145, CO_2 53 and saturation of 97.8%. Electrolytes were sodium 131, potassium 4.4, CO_2 18, and chloride 94. By 11:00 p.m. the patient responded to oral commands and moved all extremities except her right arm. She was able to recognize and speak with her mother. She was treated with Dilantin at the suggestion of the neurologist and Digitalis was continued.

At 3:00 a.m. on November 16 the patient appeared to be responding less well but her urine output decreased. It had been adequate until this time. By 8:00 a.m. on the 16th the patient was not responding to even very painful stimuli. Blood gases were $p\text{O}_2$ 22, $p\text{CO}_2$ 46, pH 7.2, and saturation 52%. Urine output was approximately 25 cc per hour in spite of several doses of Lasix. At 10:00 a.m. it was noted that the pupils were dilated and fixed and this was felt to be secondary to cerebral edema and anoxia. By noon of November 16 her chances for survival were considered poor. In the early afternoon she was treated with electrolyte solution to correct acidosis and given an aramine intravenous infusion to try to maintain her blood pressure at normal levels. The patient expired at 11:00 a.m. on November 18, 1971, having been totally unresponsive and considered terminal throughout the night.

An autopsy was performed. The gross autopsy findings are:

1. Moderate hemorrhagic pulmonary edema, right lung weighing 670 gm and left lung weighing 700 gms.
2. Moderate cerebral edema.
3. Retention cyst of the left kidney.
4. Diffuse focal hemorrhages of stomach, small bowel, bladder and endometrium.
5. Focal acute hemorrhagic cystitis.
6. Postpartum uterus.
7. Recent subdural hematoma in the lumbosacral area.
8. Possible bronch-adenoma.

The cause of death was listed as moderate hemorrhagic pulmonary edema with moderate cerebral edema, complicating eclampsia. This patient was felt to have died secondary to severe hypoxia during the multiple seizures which she had had prior to institution of adequate therapy. No specific gross findings could explain her death other than this.

Comment

This case was classified as a direct obstetrical death with preventable factors. There was a tremendous delay in the initial diagnosis and treatment of this eclamptic patient. In the December 1973 issue of the *Journal of the Kentucky Medical Association*, Vol. 71, pgs. 377-84, a similar case is delineated and the comments following that case would be the same as for this one. Essentially, it has become an increasing practice to use intravenous medication and give sufficient magnesium sulfate to control convulsions. Valium can be used initially to control the convulsions, but the definitive treatment includes delivery preceded by controlling convulsions with the use of magnesium sulfate. As long as urinary output is adequate, this will be safe. It is not unusual to give 50 gm or more in a 24-hour period, provided urinary output is adequate. Sufficient magnesium sulfate is given to keep the reflexes at 1 +. Lasix is rarely necessary but has been used in the presence of oliguria. This patient's life may have been saved by early diagnosis and treatment.

Have You Moved Recently?

Please send any change of address to *The Journal of the Kentucky Medical Association*, 3532 Ephraim McDowell Drive, Louisville, Kentucky 40205. We need your help in keeping our mailing list up to date. You are our best source of information.

"The Task"

So life glides smoothly and by stealth away,
More golden than that age of fabled gold
Renowned in ancient song; not vexed with care
Or stained with guilt, beneficent, approved
Of God and man, and peaceful in its end.
So glide my life away! and so at last,
My share of duties decently fulfilled,
May some disease, not tardy to perform
Its destined office, yet with gentle stroke,
Dismiss me, weary, to a safe retreat,
Beneath the turf that I have often trod

—William Cowper, 1785

This tribute is printed in memory of the Kentucky physicians who died during the past year.

Deceased Kentucky Physicians

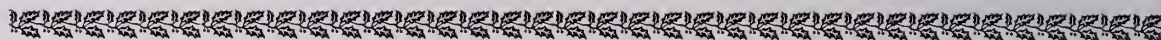
1974

Oscar Allen, Beaver Dam	Robert Hays Johnson, Louisville
Harry Smith Andrews, Louisville	Hubert C. Jones, Berea
John Wilbur Armstrong, Berea	Thomas J. Kalmer, Louisville
George Matt Asher, Jr., Pineville	Irving Fruchter Kanner, Lexington
Frank Allen Bechtel, Louisville	Eli Khouri, Jr., Paducah
John F. Berry, Jr., Lexington	Leo N. Kirch, Harlan
Stuart Goslin Blitz, Newport	Walter Arnold Kirchner, Madisonville
Thomas Tucker Brackin, Jr., Bardwell	Lloyd O. Larsen, Lexington
James Hamilton Brewer, Louisville	Nathan Levene, Louisville
Felix Manning Brown, Hopkinsville	William Nunn Lipscomb, Lexington
Joseph A. Burket, Louisville	Marvin Andrew Lucas, Louisville
Raymond Clarence Comstock, Louisville	Ralph Durbin Lynn, Elkton
Clay Crawford, Ft. Thomas	Joseph Skees Parker, Louisville
Lloyd E. Deddens, Owensboro	Gilbert Garrard Rawlings, Jr., Louisville
John Ambrose Dorger, Covington	Bernard Schneider, Louisville
Jacob Duncan Farris, Lexington	John James Sherman, Martin
David Maggard Fields, Harlan	Samuel Milton Smith, Jr., Louisville
John Futrell, Cadiz	Frank P. Strickler, Jr., Louisville
Henry Steele Gilmore, Owingsville	Robert L. Suttles, Owingsville
Francis Hill Hodges, Pikeville	Claiborne J. Walton, Milltown, Ind.
Charles E. Hornaday, Owensboro	J. E. Warren, Lexington
Philip Harold Isacco, Edmonton	Samuel Shelton Watkins, Louisville
Ellsworth H. John, Harrodsburg	John J. Wernert, Jr., Louisville

List of names of deceased physicians available to The Journal as of November 11, 1974.



EDITORIALS

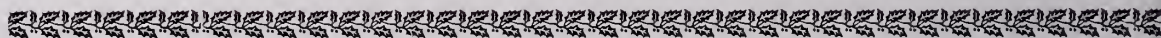


TRADITIONALLY, end-of-the-year editorials seek to bring out the best in us. I am reminded of Doctor Walter Hume's remarks in this journal just one year ago in which he discussed the virtues of gratitude, hope, joy, understanding and peace.

Another round of parties and well wishing is upon us and, predictably, there will be, at least temporarily, a revitalization of our more humanly traits. What is sad about most holiday sentiments is that they are so short lived. The emphasis should be on a *daily* renewal of self-dedication to our patients, our friends, our families rather than a one day or one week episode of hollow resolution.

We can expect no genuine lasting solution to our problems until there is a continual explosion of charity, the brotherhood of man, human kindness or whatever else one wishes to term that selfless interchange among men.

GRS





Ballard W. Cassady, M.D., Chairman of the Board of Trustees, administers the Oath of Office to KMA President, Hoyt D. Gardner, M.D., at the President's Luncheon.



David A. Hull, M.D., Lexington, President-Elect; Hoyt D. Gardner, M.D., Louisville, President; and Fred C. Rainey, M.D., Elizabethtown, Immediate Past President, confer after the President's Luncheon.

September 25, 1974 - President's Luncheon and House of Delegates' Meeting KMA Annual Meeting



Hasty W. Riddle (left) and J. Farra Van Meter, M.D., (right) are the 1974 KMA Awards recipients. Extending congratulations is Richard F. Grise, M.D., Bowling Green, Chairman of the Awards Committee (center).



David A. Hull, M.D., Lexington, KMA President-Elect, walks to the speaker's podium upon his election at the second session of the House of Delegates.



Julian Carroll, Lt. Governor of the Commonwealth of Kentucky, gave the keynote address at the President's Luncheon.

Professional

75
YEARS

Protection

CONTINUOUSLY

Since 1899

THE
MEDICAL PROTECTIVE COMPANY
FORT WAYNE, INDIANA

LOUISVILLE OFFICE: Riley Lassiter, Representative
Suite 260
Shelbyville Road Mall Office Center
400 Sherburn Lane
Telephone: (Area Code 502) 895-5501
Mailing Address: P.O. Box 20065, Louisville, Kentucky 40220



EYES RIGHT! ...to SOUTHERN OPTICAL

LOUISVILLE Southern Optical Bldg. — 640 River City Mall
Contact Lenses — 640 River City Mall
Medical Towers Bldg., Floyd & Gray
Doctors Office Bldg., Liberty at Floyd
Medical Arts Bldg., 1169 Eastern Parkway
Professional Bldg. East, 3101 Breckinridge Lane
Medix Bldg. — Adj. S.S. Mary & Elizabeth Hosp.
ST. MATTHEWS 313 Wallace Center and 108 McArthur Drive
NEW ALBANY Professional Arts Bldg., 1919 State Street
BOWLING GREEN 524 East Main Street
OWENSBORO Doctors Bldg., 1001 Center Street



Southern
Optical

**CHARGE ACCOUNTS
INVITED**
BankAmericard
Master Charge

The Editors and Staff of
The Journal Of KMA
Extend To
Our 1974 Advertisers
Sincere Thanks
and
Best Wishes
for a
Merry Christmas
and a
Happy New Year



Abbott Laboratories
Academy of Medicine of Cincinnati
American Cancer Society
American Medical Association

Berea Hospital
Blue Cross-Blue Shield of Kentucky
Burroughs-Wellcome Company

Jean Crutcher Antiques

Dorsey Laboratories

Federal Correctional Institute
First National Bank in St. Louis
Flint Laboratories

General Electric
General Leasing
William Gore Associates

HealthCare of Louisville, Inc.
Heart Association of Louisville and Jefferson
County, Inc.
Hospital Corporation of America

E. L. Kahn
Kentucky Arthritis Foundation
Kentucky Department of Personnel
Kentucky Lung Association
Kentucky Peer Review Organization, Inc.

A. P. Lee Agency, Inc.

Eli Lilly and Company
Loma Linda Foods

Marion Laboratories, Inc.
McNeil Laboratories
Medical Protective Company
Merck Sharp & Dohme

Pharmaceutical Manufacturers Association
Physician's Office
William P. Poythress & Company
Proctor & Gamble

Ramada Inn/Bluegrass Convention Center
A. H. Robins & Company
Roche Laboratories
J. B. Roerig and Company
John E. Ryan

Julius Schmid Pharmaceuticals, Inc.
Searle Laboratories
Skyway Enterprises, Inc.
Smith Kline & French Laboratories
Southern Optical Company

Tennessee Valley Medical Assembly

United States Air Force
University of Kentucky Medical Center

Vick Chemical Company

Webcon Pharmaceuticals

The J. Q. A. Stewart Memorial Meeting of The Kentucky Medical Association

Ramada Inn, Bluegrass Convention Center, Louisville, Kentucky, September 24-26, 1974

Digest* of Proceedings of the Regular Sessions of the

HOUSE OF DELEGATES

Richard F. Greathouse, M.D., Louisville

Speaker of the House, Presiding

First Session

Speaker Greathouse called the 124th Meeting of the KMA House of Delegates to order at 9:15 a.m. and asked Paul J. Parks, M.D., Bowling Green, to give the invocation. He then called on William E. Becknell, M.D., Manchester, Chairman of the Credentials Committee, to give the report of the Credentials Committee. Doctor Becknell reported that a quorum was present. A motion was made, seconded, and passed that the Minutes of the 1973 session of the House of Delegates be approved as published in the December, 1973, *Journal of the Kentucky Medical Association*.

S. Randolph Scheen, M.D., Louisville, KMA Secretary, gave several announcements. He noted that every member of the House, as well as officers, trustees, and committee members of KMA, were covered by a \$50,000 accident insurance policy upon leaving their residence to perform official duties for the Association, which became effective June 1, 1973. He announced the scientific sessions would begin at 8:50 a.m. Tuesday in the Convention Center; and stressed that the highlight of the Annual Meeting, the President's Luncheon, would take place in the Convention Center on Wednesday at 11:50 a.m. The Secretary reminded the Delegates that the Nominating Committee for general offices would meet at the close of the first session of the House, and Reference Committees would convene at 2:00 p.m. Monday

in various rooms of the Convention Center. He stated the Message Center would again be in operation throughout the Annual Meeting, and emphasized the importance of visiting the technical and scientific exhibits.

Doctor Scheen read the list of physicians who had died since the 1973 meeting of the House of Delegates, following which the members of the House stood for a moment of silent tribute. The names of the physicians, their locations, and dates of death are as follows:

Allen, Oscar	McHenry	May 15, 1974
Andrews, Harry Smith	Louisville	August 11, 1974
Armstrong, John Wilbur	Berea	November 7, 1973
Bechtel, Frank Allen	Louisville	January 15, 1974
Berry, John F., Jr.	Lexington	August 31, 1974
Biltz, Stuart Goslin	Louisville	June 20, 1974
Brackin, Thomas Tucker, Jr.	Newport	August 1974
Brewer, James Hamilton	Hopkinsville	April 8, 1974
Brown, Felix Manning	Bardwell	July 31, 1974
Burket, Joseph A.	Louisville	January 27, 1974
Comstock, Raymond Clarence	Louisville	May 30, 1974
Crawford, Clay	Ft. Thomas	December 1973
Deddens, Lloyd E.	Owensboro	May 2, 1974
Dorger, John Ambrose	Covington	May 26, 1974
Farris, Jacob Duncan	Lexington	March 7, 1974
Fields, David Maggard	Lexington	October 30, 1973
Gilmore, Henry Steele	Owingsville	December 1973
Hodges, Francis Hill	Pikeville	January 1974
Hornaday, Charles E.	Owensboro	December 14, 1973
House, Elton Rudolph	Lexington	August 26, 1973
Isacco, Philip Harold	Edmonton	March 27, 1974
Johnson, Robert Hays	Louisville	May 2, 1974
Johnson, William A.	Frankfort	September 15, 1973
Jones, Edwin L.	Mt. Sterling	September 1973
Jones, Hubert C.	Berea	January 17, 1974
Kalmer, Thomas J.	Louisville	August 2, 1974
Kanner, Irving Fruchter	Lexington	July 2, 1974
Khourri, Eli, Jr.	Paducah	August 19, 1974
Kirch, Leo N.	Harlan	January 1974
Kirchner, Walter Arnold	Madisonville	April 1974
Larsen, Lloyd O.	Lexington	January 9, 1974
Levene, Nathan	Louisville	January 20, 1974
Lipscomb, William Nunn	Lexington	September 10, 1973
Lynn, Ralph Durbin	Elkton	May 31, 1974
Molony, Howard Robert	Covington	June 1973
Norwood, James Franklin	Hardin	September 1973
Parker, Joseph Skees	Louisville	April 18, 1974
Rawlings, Gilbert Garrard, Jr.	Louisville	January 18, 1974
Schneider, Bernard	Louisville	November 18, 1973
Sherman, John James	Martin	December 6, 1973
Smith, Samuel Milton, Jr.	Louisville	January 26, 1974
Strickler, Frank P., Jr.	Louisville	July 20, 1974
Suttles, Robert L.	Owingsville	April 7, 1974
Warren, J. E.	Lexington	May 23, 1974
Watkins, Samuel Shelton	Louisville	March 17, 1974
Wernert, John J., Jr.	Louisville	February 14, 1974

*Editorial Note: A tape recording was made of the two sessions of the House of Delegates, and any member who desires to examine the transcript of these proceedings may visit the Headquarters Office and listen to the recordings.

It was moved and seconded that the following Memorial Resolutions introduced by the Fayette County Medical Society become an official part of the Digest of Proceedings of the first session of the House of Delegates, and further that the Resolutions be presented in proper form to the families of the deceased. Motion carried.

Memorial Resolution

John F. Berry, Jr., M.D.

WHEREAS, John F. Berry, Jr., M.D. died on August 31, 1974; and

WHEREAS, Doctor Berry was a member of this House of Delegates at the time of his death; and

WHEREAS, he served this Association with dedication as a delegate representing Fayette County Medical Society from 1966; therefore be it

RESOLVED, that this House of Delegates extend its profound grief at the passing of this distinguished physician; and be it further

RESOLVED, that this resolution shall become a permanent part of the proceedings of this House and that appropriate copies of this resolution be sent to Mrs. Berry and the Berry family.

Memorial Resolution

Irving F. Kanner, M.D.

WHEREAS, Irving F. Kanner, M.D. died on June 30, 1974; and

WHEREAS, Doctor Kanner served as a member of this House of Delegates as an elected representative from the Fayette County Medical Society for four years; and

WHEREAS, he was a member of this House of Delegates as alternate trustee from the Tenth KMA Trustee District at the time of his death; therefore be it

RESOLVED, that this House of Delegates of the Kentucky Medical Association express its sorrow at the passing of Irving F. Kanner, M.D.; and be it further

RESOLVED, that the sympathy of this House be expressed to Mrs. Kanner and the Kanner family, that this resolution become a permanent part of the proceedings of this House, and that appropriate copies of this resolution be presented to the Kanner family.

It was announced the name of John F. Berry, M.D., which appeared on the 1975 Nominating Committee Ballot, was replaced with the name of Colby Cowherd, M.D., of Lexington. Doctor Greathouse announced the Reference Committee appointments as follows, and noted no changes had been made since the Handbook was printed:

Reference Committee No. 1

Glenn W. Bryant, M.D., Louisville, Chairman
Peter P. Bosomworth, M.D., Lexington
Don E. Cloys, M.D., Richmond
C. Douglas LeNeave, M.D., Mayfield
Robert E. Smith, M.D., Covington

Reference Committee No. 2

Richard F. Hench, M.D., Lexington, Chairman
Henry R. Bell, M.D., Elkton
Arthur H. Keeney, M.D., Louisville
Nelson B. Rue, M.D., Bowling Green
Don R. Stephens, M.D., Cynthiana

Reference Committee No. 3

Raymond D. Wells, M.D., Inez, Chairman
R. Kendall Brown, M.D., Georgetown
Ferrell D. Mays, M.D., Elizabethtown
Earl P. Oliver, M.D., Scottsville
Marilyn M. Sanders, M.D., Owensboro

Reference Committee No. 4

McHenry S. Brewer, M.D., Louisville, Chairman
Richard B. McElvein, M.D., Lexington
W. N. Richardson, M.D., Cadiz
Jerry C. Sutkamp, M.D., Bellevue
James B. Zimmerman, M.D., Pikeville

Reference Committee No. 5

N. H. Talley, M.D., Princeton, Chairman
Danny M. Clark, M.D., Somerset
Emanuel H. Rader, M.D., Pineville
R. Parnell Rollings, M.D., Louisville
William R. Yates, M.D., Hebron

Reference Committee No. 6

Wally O. Montgomery, M.D., Paducah, Chairman
C. Nicholas Kavanaugh, M.D., Lexington
Wyatt Norvell, M.D., New Castle
Garner E. Robinson, M.D., Ashland
David L. Stewart, M.D., Louisville

Doctor Greathouse announced that the tellers for both sessions would be J. Myron Lord, M.D., Frankfort, Chairman; Glenn U. Dorroh, M.D., Lexington; and Gabe A. Payne, Jr., M.D., Hopkinsville.

The reports of the officers and committees were presented by the Speaker and referred to a reference committee as follows: (Only the reports of the officers were read.)

Report of the President, Topics I, II, IIIa, XIII, XIV, and XV only. Remaining topics were assigned as follows: Topics VI, X, and XII are referred to Reference Committee No. 3. Topic VIII is referred to Reference Committee No. 4. Topics IX, XI, XVI, and XVII are referred to Reference Committee No. 5. Topics IIIb, IV, V, and VII are referred to Reference Committee No. 6.

Report of the President, Woman's Auxiliary to KMA—Reference Committee No. 1.

Report of the President-Elect—Reference Committee No. 1.

Report of the Speaker of the House—Reference Committee No. 1.

Report of the Chairman, Board of Trustees—Reference Committee No. 1 with the following exception. The Report of the Ad Hoc Committee on Mental Health-Mental Retardation is referred to Reference Committee No. 5.

Report of the Secretary—Reference Committee No. 1.

Report of the Editor—Reference Committee No. 1.

Report of the Treasurer—Reference Committee No. 1.

Report of the Delegates to AMA—Reference Committee No. 1.

Report of the Executive Director—Reference Committee No. 1.

At this time, Doctor Greathouse announced that the president of each of the Student AMA Chapters in Kentucky was present to give an oral report to the House. Mr. C. Elliott Ray, President of the University of Kentucky Student AMA Chapter, and Mr. Phil Aaron, President of the University of Louisville Student AMA Chapter, presented their reports.

Doctor Greathouse introduced Max H. Parrott, M.D., of Portland, Oregon, the President-Elect of the American Medical Association. Doctor Parrott proceeded to the podium to address the House.

The Kentucky State Association of Medical Assistants served coffee and sweet rolls to the members of the House at 10:00 a.m. in the lobby of Ramada Inn.

Following the short break, the Speaker continued with the referral of reports to the Reference Committees.

Report of the Judicial Council—Reference Committee No. 6.

Report of the Kentucky Foundation for Medical Care, Inc.—Reference Committee No. 4, with the exception of one portion of the report. KFMC 4, dealing with the KFMC Continuing Medical Education Committee and KMA Medical Education Committee is referred to Reference Committee No. 2.

Report of the Rural Kentucky Medical Scholarship Fund—Reference Committee No. 6.

Report of the Board of Directors, Kentucky Physicians Mutual, Inc.—Reference Committee No. 4.

Report of the Scientific Program Committee—Reference Committee No. 2.

Report of the Scientific Exhibits Committee—Reference Committee No. 2.

Report of the Hospital Committee—Reference Committee No. 2.

Report of the Emergency Medical Care Committee—Reference Committee No. 2.

Report of the Advisory Committee to Blue Cross-Blue Shield—Reference Committee No. 4.

Report of the Committee on Business Management and Services—Reference Committee No. 5.

Report of the Committee on Occupational Health—Reference Committee No. 3.

Report of the Maternal Mortality Study Committee—Reference Committee No. 3.

Report of the Cancer Committee—Reference Committee No. 2.

Report of the Advisory Committee to Selective Service—Reference Committee No. 5.

Report of the Committee to Study the Constitution and Bylaws—Reference Committee No. 6.

Report of the McDowell House Board of Managers—Reference Committee No. 6.

Report of the Committee on Legislative Activities—Reference Committee No. 3.

Report of the Committee on Community and Rural Health—Reference Committee No. 4.

Report of the Committee on Environmental Quality—Reference Committee No. 3.

Report of the KMA Liaison on Cults to the AMA—Reference Committee No. 3.

Report of the Committee on Health Care of the Poor—Reference Committee No. 4.

Report of the Committee on School Health, Physical Education, and Medical Aspects of Sports—Reference Committee No. 4.

Report of the Advisory Committee to Woman's Auxiliary—Reference Committee No. 1.

Report of the Committee on Public Relations—Reference Committee No. 5.

Report of the Committee on Governmental Medical Services—Reference Committee No. 5.

Report of the Technical Advisory Committee on Physician Services (Title XIX)—Reference Committee No. 5.

Report of the Interspecialty Council—Reference Committee No. 2, with the exception of the last two paragraphs which are referred to Reference Committee No. 3.

Report of the KMA-Kentucky Nurses Association Joint Practice Committee—Reference Committee No. 6, with the exception of that section of the report dealing with continuing education, which is referred to Reference Committee No. 2.

Report of the Physician-Attorney Liaison Committee—Reference Committee No. 6.

Report of the Ad Hoc Committee to Study the External Structure of KMA—Reference Committee No. 6.

Report of the Ad Hoc Committee on Finances—Reference Committee No. 1.

New Business

New business was presented to the House by the Speaker to the Reference Committees indicated:

(A) Resolution from the KMA Medical Education Committee concerning Continuing Education Requirements for Kentucky Physicians—Reference Committee No. 2.

(B) Resolution from KMA Board of Trustees concerning the Kentucky Foundation for Medical Care—Reference Committee No. 4.

(C) Resolution from Hardin-Larue County Medical Society concerning Specialty Representation in the KMA House of Delegates—Reference Committee No. 6.

(D) Resolution from KMA Board of Trustees concerning Alternative Delivery Systems—Reference Committee No. 4.

(E) Resolution from McCracken County Medical Society concerning the Method of Selecting the Nominating Committee—Reference Committee No. 6.

(F) Resolution from Campbell-Kenton County Medical Society concerning Opposition to Public Law 92-603—Reference Committee No. 4.

(G) Resolution from Campbell-Kenton County Medical Society concerning Health Maintenance Organizations and Private Insurance Coverage—Reference Committee No. 4.

(H) Resolution from Campbell-Kenton County Medical Society concerning Public Law 92-603: KMA and AMA Relationship—Reference Committee No. 4.

(I) Resolution from Campbell-Kenton County Medical Society concerning Malpractice Suits—Reference Committee No. 6.

(J) Resolution from Warren County Medical Society concerning PSRO—Reference Committee No. 4.

(K) Resolution from Adair County Medical Society concerning Foreign Medical Graduates—Reference Committee No. 2.

(L) Resolution from Adair County Medical Society concerning Primary Care Practice of Medicine—Reference Committee No. 2.

(M) Resolution from Adair County Medical Society concerning the Report of Committee on Goals and Priorities of the National Board of Medical Examiners—Reference Committee No. 2.

(N) Resolution from Adair County Medical Society concerning Medical Licensure Fees for Kentucky Physicians—Reference Committee No. 2.

(O) Resolution from Fayette County Medical Society concerning Preservation of the System of Private Medical Practice—Reference Committee No. 3.

(P) Resolution from Pennyryle Medical Society, Inc. and Lyon County Medical Society concerning Lyon County Joining the Pennyryle Medical Society—Reference Committee No. 6.

(Q) Resolution from KMA Board of Trustees concerning Metropolitan's Use of Chiropractors—Reference Committee No. 5.

(R) Resolution from the Pennyryle Medical Society, Inc. concerning Medicare and Medicare Payments—Reference Committee No. 5.

(S) Resolution from Pennyryle Medical Society, Inc., concerning Clarification on the Selection of Delegates and Alternate Delegates to the American Medical Association—Reference Committee No. 6.

(T) Resolution from the Pennyryle Medical Society, Inc. concerning Accreditation of the Kentucky Medical Association to Award Continuing Medical Education Credits—Reference Committee No. 2.

(U) Resolution from the Jefferson County Medical

Society concerning Non-Discovery Statute—Reference Committee No. 3.

(V) Resolution from Jefferson County Medical Society concerning Jewish High Holy Days—Reference Committee No. 1.

(W) Resolution from Campbell-Kenton County Medical Society concerning Requirements of Intermediate and Extended Care Facilities—Reference Committee No. 5.

(X) Resolution from KMA Board of Trustees concerning Medicaid—Reference Committee No. 5.

(Y) Resolution from KMA Board of Trustees concerning PSRO—Reference Committee No. 4.

(Z) Resolution from Henderson County Medical Society concerning Medicaid—Reference Committee No. 5.

Due to the fact that Resolutions Q through Z were not received prior to opening of the Annual Session, a motion was made and seconded to accept these Resolutions and refer them to the appropriate Reference Committees. Motion carried.

Vice Speaker Cooper announced the meeting places for the Nominating Committees for general officers and the trustee districts electing trustees. Doctor Cooper stated that the Nominating Committee would report at the close of the first scientific session on Tuesday morning, as well as at the second meeting of the House on Wednesday. Doctor Cooper named the physicians on the Nominating Committee as follows: Wyatt Norvell, M.D., New Castle, Chairman; Leslie W. Blakey, M.D., Lexington; Peter P. Bosomworth, M.D., Lexington; Neville Caudill, M.D., Louisville; and James B. Tolliver, M.D., Whitesburg.

The meeting was adjourned at 11:45 a.m.

Second Session

Speaker Greathouse called the second session of the House of Delegates to order at 7:20 p.m. on September 25, 1974. The invocation was given by Gabe A. Payne, M.D. of Hopkinsville. Doctor Becknell reported a quorum was present.

Ballard W. Cassady, M.D., Pikeville, Chairman of the Board of Trustees, was then recognized to present the final report of the Board. He read the following resolution which was passed by the Board at its September 25 meeting and moved its adoption. The motion was seconded and carried.

WHEREAS, the 1974 KMA Annual Meeting has made a substantial contribution in the field of continuing medical education and has been well received, and

WHEREAS, many individuals, organizations and agencies including guests, and state essayists, scientific and technical exhibitors, newspapers, radio and television stations, hotels, and the Convention Center, have contributed to its success, therefore be it

RESOLVED, that this House of Delegates go on record as expressing its deepest appreciation to all individuals and organizations who have had a part in the development and implementation of the 1974 Annual Meeting.

Doctor Cassady then read another Resolution that was adopted by the Board of Trustees at its meeting on September 25 and moved its adoption. The motion was seconded and carried.

WHEREAS, John C. Quertermous, M.D., Murray, Kentucky, has during the past two decades worked untiringly and with great dedication for the benefit of his profession, this Association, and this Commonwealth; and

WHEREAS, during his long service, he has represented the Kentucky Medical Association for fourteen years as an Alternate Delegate and Delegate to the American Medical Association; and

WHEREAS, he has also served with high distinction as President of the Kentucky Medical Association; and

WHEREAS, in performing the duties inherent to such positions, he has distinguished himself in a manner which has brought great credit to the profession he has so ably represented; now therefore be it

RESOLVED, that the Board of Trustees of the Kentucky Medical Association, meeting in regular session on September 25, 1974, does hereby unanimously acclaim the great contributions of John C. Quertermous, M.D.; and be it further

RESOLVED, that this Board of Trustees spread officially upon the Minutes of these proceedings, this Resolution in its entirety, so that all those, who may in years to come have occasion to look upon the records of the Kentucky Medical Association, will know that John C. Quertermous, M.D., by his diligence, perserverance, long service, and devotion to the duty he so strongly felt, helped to build a lasting organization to more effectively represent all those physicians who may follow in the years to come; and be it further

RESOLVED, that this Resolution, prepared in a proper manner, be presented to Doctor Quertermous so that he, his family, his friends, and his peers throughout this Commonwealth will know of the high regard and great affection in which he is held by all those who have had the privilege of knowing him during his more than twenty years of dedicated and untiring devotion to his profession, his Association, and the Commonwealth of Kentucky.

Doctor Scheen was then called to the podium for announcements and recognition of guests from the surrounding state medical associations who had attended KMA's Annual Session. Included were James C. Cope, M.D., President, Missouri State Medical Association; Joseph E.

Dukes, M.D., President, Indiana State Medical Association; William E. Gilmore, M.D., President, West Virginia State Medical Association; James L. Henry, M.D., President, Ohio State Medical Association; and John A. Martin, M.D., president, The Medical Society of Virginia. Doctor Scheen also noted other out of state visitors in addition to AMA President-Elect, Max H. Parrott, M.D., of Portland, Oregon, included Rex E. Kenyon, M.D., Member, AMPAC Board, Oklahoma City; and W. J. Lewis, M.D., Chairman, AMPAC Board of Directors, Dayton, Ohio. Doctor Greathouse then acknowledged Harold E. Boyer, D.D.S., Vice President for Health Affairs at the University of Louisville, and Peter P. Bosomworth, M.D., Vice President, University of Kentucky Medical Center.

At this time, Doctor Greathouse turned the chair over to the Vice Speaker, Carl Cooper, Jr., M.D., to introduce the chairmen of the first three reference committees.

REFERENCE COMMITTEE NO. 1*

Glenn W. Bryant, M.D., Louisville, Chairman

Reference Committee No. 1 considered the following reports and resolutions:

1. Report of the President, with the exception of the following topics:

Topic IIIb—referred to Reference Committee No. 6

(The Election Process for President-Elect)—pages 1.3 and 1.4

Topic IV—referred to Reference Committee No. 6

(The Office of Vice President)—pages 1.4 and 1.5

Topic V—referred to Reference Committee No. 6

(The Office of Vice President)—pages 1.4 and 1.5

Topic V—referred to Reference Committee No. 6

(Participation of Medical Students, Interns, and Residents in Organized Medicine)—pages 1.5 and 1.6

Topic VI—referred to Reference Committee No. 3

(National Health Insurance)—pages 1.6 and 1.7

**In order to make the Digest of Proceedings of the second meeting of the House of Delegates more understandable and because it will occupy less space in The Journal, the KMA Board of Trustees passed the following motion several years ago: "That if no dissenting action on the committee's recommendations is made either by the committee or the KMA Board of Trustees, only the reference committee action on the report be printed in The Journal."*

Topic VII—referred to Reference Committee No. 6

(AMA, KMA, and County Membership—Unified Membership)—pages 1.7 and 1.8

Topic VIII—referred to Reference Committee No. 4

(PSRO—KPRO)—pages 1.8 and 1.9

Topic IX—referred to Reference Committee No. 5

(Public Relations)—pages 1.9 and 1.10

Topic X—referred to Reference Committee No. 3

(Legislative Activities) pages 1.10 and 1.11

Topic XI—referred to Reference Committee No. 5

(Medicaid)—pages 1.11 and 1.12

Topic XII—referred to Reference Committee No. 3 (KEMPAC)—page 1.12

Topic XVI—referred to Reference Committee No. 5

(Mental Health Programs in Kentucky)—pages 1.14 through 1.17

Topic XVII—referred to Reference Committee No. 5

(Bureau of Health Services)—pages 1.17 and 1.18

2. Report of the President, Woman's Auxiliary to KMA

3. Report of the President-Elect

4. Report of the Speaker and Vice Speaker of the House

5. Report of the Chairman, Board of Trustees, except The Report of the

Ad Hoc Committee on Mental Health-Mental Retardation (pages 5.9 through 5.14), which is referred to Reference Committee No. 5

6. Report of the Secretary

7. Report of the Editor

8. Report of the Treasurer

9. Report of the Delegates to AMA

10. Report of the Executive Director

33. Report of the Advisory Committee to the Woman's Auxiliary

41. Report of the Ad Hoc Committee on Finances Resolution V—Jewish High Holy Days-KMA County Medical Society)

Report of the President

Topics I, II, III, IIIa, XIII, XIV, and XV Only

It seems such a short time ago that I assumed the office of President and attempted to plan activities and objectives for the year. I am deeply grateful to all of you for affording me the opportunity and honor of serving as your President. My greatest regret is that I was not in a position which would allow me to devote full time to the affairs of the Association. I sincerely hope that in some small way, I have been able to make a contribution to our profession. I am compelled to note that this Associational year has been chugged full of problems which medicine has had to face and with which we must continue to deal. As I travelled the state, I found many concerned among

our members and I personally feel we are now facing the most difficult times we have ever faced, both at the state and national level. I shall attempt to enumerate some of the problems. Some will be personal opinions, others will be in the form of recommendations for your discussion and consideration.

I shall attempt to present the following sections of this report to you in such a manner that each may be easily referred to various reference committees for appropriate discussion and consideration. I shall be available during the reference committee meetings and will be pleased to appear before any of them for any additional comments and/or questions which committee members may desire.

TOPIC I. KMA Staff

It seems to be "routine" for a President to thank his staff and I know that each year they have been highly commended by each retiring President. Almost perhaps, to the point that this may be taken as a "routine procedure". I would be very disappointed if I felt that the House considered the following comment in such a vein. During this year as President I have obviously been more involved with the detailed affairs of the Association and have obviously become more acutely aware of the vast amount of work which our staff men and secretaries turn out. In addition to that, it has been my privilege to visit many other organizations within the State of Kentucky and several medical associations outside the State of Kentucky and I can say without any reservation whatsoever that the staff members on our payroll stand head and shoulders above any that I have seen anywhere else. I am afraid that we have failed to fully appreciate their dedication and the unbelievable amount of work which they do for us. I personally feel that when situations develop with which individual physician members disagree, such disagreement should be filed with the officers of this Association and not with the staff. I hope that this point can be emphasized over and over as I feel that it is extremely unfortunate and unfair for members of this Association to "unload" on our staff when, in fact, the policy is established by the officers of this Association. I wish to express my deep personal appreciation to each staff member and each secretary for the tremendous cooperation and assistance which they have given me this year. Without them, the year would have been a total loss.

TOPIC II. Woman's Auxiliary

The Woman's Auxiliary has been most cooperative and helpful this year and I wish to thank President Pearson and all members of the Auxiliary for their valued assistance. They are to be particularly commended for their contribution to the AMA-ERF, Child Abuse Program, KEMPAC, and the assistance which they gave us on efforts to have discriminatory Phase IV controls removed.

TOPIC III. The Office of KMA President TOPIC IIIa. Travel and Expenses

The office of President has developed into a position which requires appreciable time and travel. I

have discussed with several past presidents the expenses they incurred and have considered those expenses in relation to the budgeted expense allowance which they received. I have found that frequently, if not consistently, the expenses incurred by the President of KMA exceed the amount budgeted for that expense. I personally feel the time has come when we should consider a larger expense allowance for the President. I know this is a subject which few outgoing presidents wish to discuss, and I would like to emphasize that this is in no way a form of complaint. I fully understood both the anticipated expense of the office and the amount budgeted for this office before I assumed the Presidency. However, I do feel that I have an obligation and a responsibility to those who will follow me in this office to express this view. I have received \$2,500 for the Associational year and expenses for out-of-state meetings alone have exceeded this amount. I am aware that the President's expenses are being increased to \$5,000 a year beginning with the 1974-75 Associational year but included in that increase is the suggestion that the additional amount is to also cover the travel expenses of the President's wife whom he is encouraged to take along. Obviously, some presidents will travel more than others and I readily recognize the difficulty of keeping records to the penny on *all* trips in order that the President could be reimbursed on an expense-incurred basis. Perhaps it might be feasible to give the President a flat sum for in-state meetings and reimburse him on an expense-incurred basis for out-of-state meetings. I shall have available a fairly detailed travel and expense record for the consideration of the reference committee if they so desire.

TOPIC XIII. Doctor Gardner's Election as AMA Trustee

Certainly, one of the highlights of this year's activities was the election of Doctor Hoyt Gardner as a member of the AMA Board of Trustees. I feel this gives Kentucky a voice in organized medicine at the AMA level which we would not have had without a Kentucky physician on the Board. I wish to congratulate him for having been elected not only as a Trustee but especially as a member of the AMA Board of Trustees' Executive Committee. This is certainly an honor and a tribute to Doctor Gardner's ability. I wish to thank all those people who worked during the campaign to assure his election. I personally feel that the long-standing position of KMA of being a "free standing state organization" was most beneficial in Doctor Gardner's campaign. Although we certainly should continue to communicate and cooperate with our sister states, I feel that the KMA Board took a wise position when they decided that KMA would not become officially a part of any regional "congress" on issues and/or elections with other state medical associations.

TOPIC XIV. KMA's Financial Picture

I feel we can be proud that during our five years dues plan, we have not found it necessary to cut back our involvement; but have, in fact, increased our

scope of activities while reducing costs through good fiscal management. I can assure you that your budget committee, treasurer, and other officers and the staff are consistently dedicated to conserving the dues dollar. We have been fortunate to maintain this posture during this period of rapid inflationary spiral. As we approach with the plan an essential dues increase next year, I think it appropriate if we again try to adopt a five-year plan.

In discussing dues, our Board of Trustees, in keeping with previous actions of the House of Delegates has adopted a state-wide, centralized dues billing system for next year. This again means additional burden on KMA staff but will greatly assist the county society secretary, (an unsung hero) who is swamped with too heavy a workload already. The county society secretary will soon receive a list of physicians in his county for justification of eligibility for membership. During the late fall, dues statements will be sent out from and returned to the KMA headquarters. A few counties still plan to collect their own dues for 1975, but I feel as soon as it is understood that this is another service being performed by KMA that all counties will wish to participate. I urge your cooperation and hopefully we can make this new endeavour as smooth an operation as possible.

TOPIC XV. External Affairs

We have held many extremely successful and productive seminars in the past year, all of which in my opinion should be continued and perhaps even expanded in future years. However, I would suggest that the degree of activity on seminars should be determined by the Board of Trustees since the number of seminars conducted this year has obviously worked a hardship on our staff due to the increased workload. We had a most successful and well-attended Emergency Medical Care Seminar and also a well-attended and most successful seminar for new physicians and still another for physicians' assistants. We have had many, many compliments on all of these seminars and have had formal requests for expansion of some of them. I readily recognize that such activities vastly increases the workload of our staff and I would submit that it may be necessary in the immediate future to expand the KMA staff to cover the vast range of activities in which we now find ourselves involved.

In conclusion I pledge my support and cooperation in any way possible to this House in future years and especially to my successor Doctor Gardner this next year. It has been a genuine pleasure to have the privilege to serve.

Fred C. Rainey, M.D., President

Recommendations, Reference Committee No. 1

Reference Committee No. 1 has reviewed the Report of the President completely. Topics I, II, IIIa, XIII, XIV, and XV are covered specifically in this report. We wish to commend him for an excellent report and for his great service to KMA. The amount of time and the number of meetings he has attended attests that he has done a superb job for our Association. As mentioned in his report, we feel that any

concerns members have, should be taken to the officers of the Association rather than staff. We recognize the desirability of full reimbursement of travel expenses for the President and feel that this should be carried out within the context of the approved budget.

The President mentions as one of the highlights of the year the election of Hoyt D. Gardner, M.D., to the Executive Committee of the AMA Board of Trustees. The Reference Committee feels that this is a great honor to Doctor Gardner and to KMA. We commend the President for a very complete report and for a job well done.

Mr. Speaker, I move the adoption of this section of the report.

(Motion was seconded and carried.)

Report of the President of the Woman's Auxiliary

The Woman's Auxiliary to the Kentucky Medical Association has 1,334 members (as of June, 1974). The Auxiliary's greatest membership potential is in the many counties in our state where there are no organized auxiliaries. Special efforts were made this year to recruit these physicians' wives as Auxiliary members. Presently, there are 91 Auxiliary members-at-large.

There are 25 organized county Auxiliaries. Multi-counties are counted as one. Their activities and projects vary according to size, location, etc. Each organized county Auxiliary has this year been encouraged to assess and evaluate the needs of both the Auxiliary and its members as they relate to the needs of the community, and then to re-assess and re-evaluate its programs and projects accordingly.

Nineteen of our organized county Auxiliaries contributed more to AMA-ERF than in the previous year, and as a total group, contributed more than the previous year by almost \$2,000.00. From June 1, 1973, to May 31, 1974, Kentucky physicians and their wives contributed a record total of \$12,549.88. Of this amount, the Auxiliary contributed \$7,909.88.

Legislatively and politically, the state and county Auxiliaries have shown an increasing amount of awareness. During the state legislative session, our Chairman attended all KMA Legislative Committee meetings to keep herself informed, and to lend Auxiliary support and assistance when and where it was deemed appropriate. On March 25, 1974, the National Auxiliary with AMA approval, and the State Auxiliary with KMA approval, initiated an Alert on Phase IV. Ninety-three letters were immediately sent to state and county Auxiliary leaders from all seven Congressional districts. The results were that Kentucky's Senators and Congressmen received approximately 650 letters urging them to discontinue cost controls on physicians.

The Auxiliary has four women serving on the KEMPAC Board of Directors and they help keep Auxiliaries informed about the ever present need to be an active PAC member. We do have good Auxiliary participation at this level, and we were pleased to again receive AMPAC's second place award as the state with the second largest number of women PAC members.

Public Relations was added as a new committee for the Auxiliary. It has been working to find its identity and proper role both as a functioning committee of WA-KMA, and also as a liaison committee with KMA's P.R. Committee. Its goals are three-fold: to improve public relations within our organization, with KMA, and with the lay community.

A new design and format was given to our official publication, *The Blue Grass News*. We continue to publish and mail this newspaper four times a year to all Auxiliary members.

Another area of concern is Child Abuse and Neglect. This Committee's goals were to help educate Auxiliary members about the problem, then educate the community, and then undertake action programs in relation to assessed need within a specific community. We have tried to coordinate and integrate our work with that of other groups. This Committee's Chairman has served on the Kentucky Child Protective Services Committee, which functions as an organized forum to deal with the problems of child abuse and neglect. The excellent work of this Committee and the county Auxiliaries that participated, found a bonus in the improved public relations that resulted.

Though these areas constituted areas of emphasis, Kentucky Auxiliaries have increased their participation and involvement in other areas. Some have distributed AMA emergency medical ID pamphlets. Auxiliaries have participated in blood donor programs, anti-VD, drug abuse, and eye screening programs. Two Auxiliaries have GEMS (Good Emergency Mother Substitutes) programs, and three Auxiliaries support Doctor's Day, KMA's Ephraim McDowell House, and the Kentucky-based International Book Project. We continue to support both WA-SAMA chapters. Counties sponsor health careers fairs, and loans and scholarships are provided in increasing amounts at the state and county levels to students going into allied health fields.

We appreciate the continuing financial support of KMA. It has enabled us to have a part-time secretary, Mrs. Diane Schmidt. Without someone in this position, we would lack that valuable asset every organization needs—continuity in spite of annual leadership changes. Our office at KMA Headquarters provides a stabilizing force for us; a permanent place for our membership files, as well as other important records and information.

To you, Doctor Rainey, the other officers and Trustees, and to Mr. Cox and the entire KMA staff, I express my sincere appreciation, not only for your assistance and cooperation, but also for your support and encouragement and for the many kindnesses you have shown to me personally.

Mrs. William Pearson (Sara), President

Recommendations, Reference Committee No. 1

The Report of the President of the Woman's Auxiliary to the Kentucky Medical Association has been reviewed. We would like to commend the auxiliary for their contribution to the AMA-ERF, Child Abuse Program, KEMPAC, and its efforts to have discriminatory Phase IV controls removed. We

congratulate the Woman's Auxiliary and commend their President on their accomplishments in the past year and express gratitude for the help given to KMA.

Mr. Speaker, I move the adoption of this section of the report.

(Motion was seconded and carried.)

Report of the President-Elect

The President-Elect concept was an idea programmed to give the possessor of the title an opportunity for observation, education, and participation, but benefit of responsibility.

Through the years, this concept has proven to be worthy, beneficial, and practical. It provides a training ground, really, for the subsequent year of service and contribution.

The above seedings have been gratefully received and hereby acknowledged, and hopefully will be culminated by a productive year.

This year's events, beginning with the September 1973 Annual Meeting, and concluding this September, 1974, evoke much appreciation to the custodians of your affairs, from me. Fred Rainey and "Hop" Cassidy are splendid examples of what physician leaders should be and can be. They deserve standing applause. The members of the Board of Trustees, singly and collectively, are devoted, sincere, and substantive.

The Woman's Auxiliary is contributory, worthy, and most willing. Our staff members, who are our "good right arms" and our continuity, are without parallel anywhere, and are stimulative to all of us.

We have many close ancillary friends and colleagues of similar faith, such as Blue Shield, the Kentucky Hospital Association, the Chamber of Commerce, the Dental and Pharmaceutical Associations, and elected members of the State and Federal government, for whom we can be forever grateful and with whom we must always seek and find common ground.

With all of these valuable assets and fine stimuli, we must not collectively allow failure of ideals or objectives. If we should falter, it is not the blame of others; it is the fault of the next leadership who will have failed to stir the apathy, stimulate the need for knowledge, and bring participation.

With thanks to all for the chance to see, the knowledge you have given, and the chance to do, I pledge every effort of mine in your behalf, and I ask you to give what you can, do what you will, and most of all, be the good physician, good wife, good friend, and with the coming of September, 1975, we will have done well. If not, it will not have been a fault of yours.

As we begin, I salute you.

Hoyt D. Gardner, M.D., President-Elect

Recommendations, Reference Committee No. 1

The Report of the President-Elect has been reviewed, and the Committee wishes to extend to Doctor Gardner its wishes for a successful term of office. He has asked for the help of each one of us, and we hope that this will be forthcoming.

Mr. Speaker, I move the adoption of this section of the report.

(Motion was seconded and carried.)

Report of the Speaker and Vice Speaker House of Delegates

As Speaker of the House, and Doctor Cooper as Vice Speaker, we would like to take this opportunity to thank all of the Delegates for their participation and attention to the duties and problems at hand at last year's House of Delegates sessions. The activities of the Association and the Delegates, and the matters which come before us continue to expand both in quantity and in variety and in many cases in complexity. While many reports of committees appear to be somewhat brief in summation of their activities, the Speaker and Vice Speaker would like to note that all committees have done a yeoman's job during the year on behalf of your KMA.

The matter of parliamentary procedure is still in the hands of the Speaker, Vice Speaker and the Parliamentarian and it has been our thought that some further resolution be adopted in this matter. Many of you will recall that a somewhat complicated issue arose a few years ago which necessitated, at that time, some change in our procedure to the extent that a parliamentarian was made necessary. This issue, and other related issues, has long since been resolved and it is the opinion of the Speaker that we should have the Speaker and Vice Speaker act as Parliamentarians for the House of Delegates. This is a recommendation for the House to consider. Bear in mind that any time the House feels that the Speaker and Vice Speaker have made a mistake or have made an inopportune or inappropriate decision regarding parliamentary procedure, the Speaker and Vice Speaker can be overruled.

To follow this idea out, KMA has authorized funds to send the Speaker and Vice Speaker to special seminars on parliamentary procedure whenever they are available and when they arise in certain sections of the country. There has been a very good Speaker's seminar held in New Orleans, Louisiana, for the past number of years which has been found to be very informative. Again, it is our recommendation that the House consider eliminating the role of Parliamentarian and allowing the Speaker and Vice Speaker to assume this duty once again.

This will be my last report to you as Speaker of the House as my current term expires with the 1974 Session. I would like to personally thank all Delegates and Chairmen and committee members for their help and for their wonderful cooperation during the sessions at which I have presided. My best wishes to the new Speaker and Vice Speaker, and if at any time I can be of any service or help to them or to any member of the House of Delegates in any way, I hope they will feel free to call on me.

It has been my distinct pleasure to work with Doctor Cooper as Vice Speaker over these past few years, and I want to thank him for his wonderful cooperation and help in managing the affairs of the

Speaker and Vice Speaker's offices. With that in mind, I would wish you the very best in your deliberations over the oftentimes difficult, complicated matters, such as PSRO and other problems, that will come before the House this year and in succeeding years.

Richard F. Greathouse, M.D., Speaker
Carl Cooper, M.D., Vice-Speaker

Recommendations, Reference Committee No. 1

The Report of the Speaker and Vice Speaker of the House of Delegates has been reviewed. The Reference Committee concurs that the Speaker and Vice Speaker attend special seminars on parliamentary procedure, and after hearing testimony from the Vice Speaker and others, recommends amendment of the report so as to permit continuation of the office of parliamentarian.

Mr. Speaker, I move the adoption of this section of the report.

(Motion was seconded and carried.)

Report of the Chairman of the Board of Trustees

Except That Portion of the Report Dealing with the Ad Hoc Committee on Mental Health-Mental Retardation

It is with a great deal of mixed emotions that I submit to you this report regarding a summary of the activities of your Board of Trustees.

Having first assumed a two-year unexpired term on the Board, then serving two full three-year terms, I am winding up eight years as a Trustee with this report. I report that to you because it has given me eight years of continuing pleasure to see physicians from across this state serve their profession faithfully, with hard work and enthusiasm. It has been a challenging and rewarding eight years and an opportunity to have seen the growth of KMA as an organization in its variety of programs, in its volume of activities and in the manner in which your elected officials and staff have met these challenges.

Unfortunately, there is no way I can really report to you all the things your KMA does for you and your patients through this Board report. This resumé of activities just gives you a taste, hopefully enough to challenge you to support your KMA and to encourage you to become more involved at every level. A unified profession is a necessity and I only wish each of you could have the opportunity to see KMA in action from a seat on the Executive Committee or the Board of Trustees. As my term on the Board expires, I plead with you to inform me of what you think KMA should be doing that we aren't or what we should quit doing that we are or at least offer some suggestions that I can pass on to those with whom I have served.

We continue to emphasize that KMA must take a stand and voice policy statements on many issues today. As individuals we can never be unanimous on all of our personal feelings but as an organization we must remain unified and build on our strength annually. When you hear a colleague voice concern on some policy of KMA, join me in urging his support

for our overall unity and not be sidetracked on individual matters, often of an emotional nature.

This coming year is the last of our five year dues plan initiated in September 1970 and our dues will need to be adjusted at this meeting next year. I have served as Chairman of the Budget Committee on a number of occasions in recent years and with the increased demands on our Association and the runaway inflationary spiral in the past year or two, a yeoman's job has been accomplished to conserve your funds, yet get the job done, and without having to accelerate that five year plan. It has worked well and I would personally recommend to you that your Budget Committee be asked to submit for your consideration next year another five year dues plan rather than our having to wrestle with this chore on a more frequent basis.

After eight years, I am at a loss to express my gratitude to my colleagues, those Board members with whom I now serve and have served with in the past. They are dedicated men, responsible to the membership, unselfish of their time and perhaps greatest of all, outstanding gentlemen and friends. Space does not permit me to give them proper credit by reporting their accomplishments. Following a summary of the Board minutes, I will briefly report on sessions of the Executive Committee and actions of Ad Hoc Committees.

First Meeting, September 20, 1973

Acting as temporary Chairman, KMA Secretary S. Randolph Scheen, M.D., introduced the newly elected members of the Board as follows:

Hoyt D. Gardner, M.D., as President-Elect

Gabe A. Payne, M.D., as Vice-President

John P. Stewart, M.D., as Seventh District Trustee

James L. Ferrell, M.D., as Ninth District Trustee

The Board then elected the Executive Committee members to serve with the President, President-Elect, Vice-President, and Secretary for the 1973-74 Associational year. Chosen as Board Chairman was Ballard W. Cassady, M.D., and Vice-Chairman, Paul J. Parks, M.D. Edward N. Maxwell, M.D. and Robert N. McLeod, Jr., M.D., were also named to the Executive Committee to represent the Board of Trustees.

Elected to serve on the Board of Directors of the Kentucky Foundation for Medical Care were Carl J. Brueggemann, M.D. and Robert M. Blake, M.D. A slate of individuals for election to the KEMPAC Board was submitted and approved by the Board.

The Board reviewed and held lengthy discussion on appointment of members to KMA committees for the 1973-74 Associational year. After selecting the Louisville Ramada Inn/Bluegrass Convention Center as the site for the 1974 Annual Meeting, the Board set the date for its next meeting to be December 13, 1973.

Second Meeting, December 13, 1973

The second regular session of the KMA Board of Trustees was held on December 13, 1973, at the Headquarters Office. Reports of the President, Headquarters Office, and Delegates to AMA were reviewed and accepted for information. Laman Gray, M.D., a member of the Comprehensive Health Planning Council, reported on recent activities of the Council.

The Board acted on numerous committee recommendations, such as:

Discontinuing the voluntary Orientation Program.
Authorizing appointment of a Cancer Committee to conduct a program that would encourage women to have an annual pap smear.

Announcing that administrative duties of the Kentucky Psychiatric Association would be assumed by the KMA staff effective January 1.

Urging the Business Management and Services Committee to finalize plans with the Quick Action Committee for a spring tour for KMA members.

Approving numerous programs of the Public Relations Committee, including a venereal disease control program in state high schools and colleges with the support of the Kentucky Jaycees; a brochure for all KMA members regarding Association services and activities; a Workshop for New Physicians to be held April 22 and 23, 1974, at the Headquarters Office and co-sponsored by AMA-ERF.

Urging the Governor and Legislature to provide adequate funding for the Kentucky Medical Examiners System.

Appropriating \$500 to help defray the cost of the 1974 Seminar on Medical Aspects of Sports.

Approving further pursuit by the Hospital Committee of the physician awareness program on hospital costs and an educational program on proper emergency room usage.

Recognizing the Kentucky Chapter, American College of Emergency Physicians as a specialty group on a provisional basis.

It was noted that the final resolution on PSRO approved by the AMA at its Clinical Convention in December used verbatim some of the wording of KMA's PSRO resolution which was passed by the 1973 House of Delegates in September and then submitted to the AMA House.

In other action, the Board heard from David A. Hull, M.D., President of the Kentucky Foundation for Medical Care, regarding approval of a single statewide PSRO in Kentucky. He also announced two two-day seminars on PSRO would be held during March, 1974, in Louisville and Lexington and there were plans to hold mini-workshops in each trustee district at a later date.

Third Meeting, April 11, 1974

The third regular meeting of the KMA Board of Trustees was held on April 11, 1974, at the KMA Headquarters Office. The President's Report and Headquarters Office Report were reviewed and accepted for information at the start of the meeting.

Three proposals for Bylaws changes were approved by the Board and referred to the Committee on Constitution and Bylaws. The first dealt with representation of one student delegate from the University of Louisville and the University of Kentucky to the KMA House of Delegates with the privilege of one vote each. The second recommendation would allow candidates for the offices of KMA President and Vice-president to seek office at large. The third proposal concerned the Nominating Committee.

The 1974-75 proposed budget was presented after previously being approved by the Budget Committee

and the Executive Committee. The Board approved the budget as submitted.

The Kentucky Foundation for Medical Care report was presented by KPMC President, David A. Hull, M.D., Lexington. The Board voted to enlarge the KPMC Board, to establish the Kentucky Peer Review Organization and to submit a planning grant proposal for this free-standing statewide organization.

William P. McElwain, M.D., Frankfort, presented a report from the Kentucky Board of Medical Licensure and a detailed report was given by Commissioner Gail Huecker of the Bureau of Social Insurance on the Title XIX Program.

The Board approved implementation of a centralized dues billing process whereby the KMA Headquarters Office would bill for county society dues, when requested, except for Jefferson and Fayette, as well as KMA and AMA dues.

The Board nominated physicians to serve on several state councils and boards and forwarded these nominations to the Governor for appointment.

Committee action and recommendations to the Board were as follows:

1) **Legislative Activities Committee** reported on the Washington Dinner to be held May 13 and 14 and referred Board members to a detailed report distributed to them concerning recent state Legislative activities. 2) **Business Management and Services Committee** made recommendations regarding disability insurance for physicians and umbrella insurance coverage. These recommendations were approved. 3) **Public Relations Committee** reported on the "Workshop for New Physicians" in April and the Office Assistants Seminar for June 13 and July 17.

AMA-ERF checks, totaling \$14,002.47, were presented to the deans of the two medical schools. The Board also endorsed the candidacy of Hoyt D. Gardner, M.D., Louisville, for membership on the AMA Board of Trustees.

Board approval was given to a recommendation to Kentucky physicians not to accept federal funds for services rendered for emergency care during the recent tornado disaster. Distribution of this action was to be made through the AMA, the press and publications of the Association. A special letter was also sent to each KMA member informing them of this action.

The date of the next meeting of the KMA Board of Trustees was set for August 15, 1974, at the KMA Headquarters Office.

Fourth Meeting, August 14-15, 1974

The main purpose of this August Board meeting is to review the Committee reports prior to their being submitted to the House of Delegates and attach any action taken by the Board. We had some Committee chairmen present to discuss their reports orally and Trustees were assigned specific reports to outline in detail to the other Board members the main considerations of each report.

We additionally had routine reports indicating a tremendous amount of activity by the KMA President, Senior Delegate to the AMA, Corporate Secretary, President of the Foundation for Medical Care, and President of the Board of Medical Licensure.

A major matter before the Board consisted of a thorough and detailed discussion of the Medicaid Pro-

gram with the Secretary of the Department for Human Resources and Director of the Medicaid Program in attendance.

The President reported on his activities individually, meetings he had attended, and other official representation of KMA. The AMA delegates reported in considerable detail on the June convention, reviewing specifically the election of Hoyt D. Gardner, M.D., of Louisville as an AMA Trustee and the action of the AMA House on PSRO. KMA's official position concerning the Medicaid Program had previously been transmitted in writing to the Governor and the plan for updating the Program was presented in person at the meeting by the governmental officials mentioned above. It was the general consensus of the Board that the plan presented fell considerably short of KMA's Medicaid policy and the Board requested the Executive Committee to continue their discussions with the Governor and/or his representatives to try and get an equitable plan finalized prior to the House of Delegates meeting in September.

A one-half hour film on Appalachia dealing with health care and the social issues of that area was reviewed by the Board for the second time. Both the staff representative from AMA and John Burkhart, M.D., Chairman of the AMA Health Care of the Poor Committee were in attendance to respond to questions concerning the film. After reviewing the film and discussing it, it was taken by consent that this particular film was probably outdated and the AMA representatives indicated that it would not be utilized any further.

In other action, a detailed report was presented concerning alternate methods of health care delivery systems in Kentucky, with specific discussion directed to some health maintenance organizations already in existence or about to become active. The meeting closed with appointments of the KMA Journal editors and consideration of Annual Meeting matters.

As in the past, members of the Executive Committee assumed an important job on behalf of the Association very early in this Associational year. The first meeting of the Executive Committee was held in October. The main purpose of this meeting was to implement actions of the 1973 House of Delegates session. Other items covered in this initial meeting were such matters as the fact that attendance at the KMA Orientation Program had been very poor and that the Legislative Key Man Seminar had not been well attended in recent years. For this reason, it was determined that both of these meetings would not be held in 1974. Several committees were also appointed at that time by the Executive Committee, including the Ad Hoc Committee on Mental Health-Mental Retardation.

The Executive Committee met for a second time on December 27, 1973, to discuss several specific recommendations which had been made by the Quick Action Committee. Changes were made in several Associational programs as a result of these discussions. The Executive Committee also met as a Reorganization Committee as a result of action of the House of Delegates at the 1973 Annual Meeting to study the internal structure of KMA.

The Executive Committee met in March 1974 and discussed at length the proposed budget for the 1974-1975 fiscal year. An Ad Hoc Committee on Finance was appointed at this time, comprised of four members of the Board of Trustees and four members of the House of Delegates. Staff reported that over 1,400 bills and resolutions had been introduced in the 60-day session of the 1974 General Assembly, which had just adjourned a week prior to the Executive Committee meeting. Another main item covered at that meeting was a report from the President concerning the continuing activities of KMA to assist in improving the Title XIX program of Kentucky.

The Executive Committee met again in July to review highlights of the AMA Annual Meeting and to discuss in depth implementation of PSRO through the Kentucky Peer Review Organization. A lengthy discussion was held during this meeting concerning services to members of the Interspecialty Council and a number of recommendations from various committees were discussed in depth.

The August meeting of the Executive Committee is one of the longest meetings held by this group during an Associational year. It is at that time that the Executive Committee meets as a Nominating Committee to review the entire committee structure of KMA and make such changes, additions, and deletions from the committee structure as are necessary for the Association to function in the most efficient manner. The complete minutes of the Executive Committee and Board of Trustees will be made available during the Annual Meeting to members of Reference Committee #1.

Following is a report of one of the Ad Hoc Committees of the Board.

Ad Hoc Committee To Study The Reorganization of KMA

In his President's Report to the House of Delegates last year, Doctor Hess recommended formation of an Ad Hoc Committee to study KMA's objectives, committee structure, and generally any reorganizational activities that seemed indicated. A purpose of this group was to be a follow up to the so-called KMA "Hoover Commission" which made some significant organizational changes in 1966 and 1967.

The Executive Committee and Doctor Hess served this year as this Ad Hoc Committee, and a thorough review was made of committee activities and all internal operations of KMA.

One of the ongoing recommendations of the Hoover Commission was that the Executive Committee keep KMA's committee structure in proper proportion and keep their "finger on the pulse of KMA." After receiving reports and reviewing KMA's current posture, it was fully agreed that the Executive Committee had performed excellently in recent years by adjusting, eliminating, combining, and adding KMA committees as need indicated, as well as planning for KMA's future requirements.

Another lengthy discussion was held on the relationship between KMA and the Kentucky Foundation for Medical Care (KFMC). With the removal of PSRO activities out of KFMC and into a new free-standing organization, the Kentucky Peer Review Organization (KPRO), the Foundation activity will

be considerably lessened. It may be that further studies in the next few weeks could alter even more the role of KFMC by consideration of transferring its active committees back to KMA, and the Foundation itself could be put in a "holding pattern" for possible future use.

The Executive Committee has every intention to continue its responsibility of insuring that KMA is fulfilling its proper role, and we certainly encourage suggestions and recommendations from the entire membership.

Ballard W. Cassady, M.D., Chairman

In closing my report, I once again want to express my sincere appreciation to the officers, members of the Board, Committee members, staff, and all of those who have served so diligently on the behalf of medicine during my term as Chairman of the Board and through my eight years as a member of the Board.

Ballard W. Cassady, M.D., Board Chairman

Recommendations, Reference Committee No. 1

The Report of the Chairman of the Board of Trustees, except that section concerning the Ad Hoc Committee on Mental Health and Mental Retardation, was reviewed by the Reference Committee. We would like to pay tribute to the Chairman for his eight years of service and a very complete report concerning the activities of the Board of Trustees this past year.

Mr. Speaker, I recommend adoption of this section of the report.

(Motion was seconded and carried.)

Report of the Secretary

As the fall of the year approaches, we realize that it is Annual Meeting time again for the KMA. The year has passed very quickly and I feel that the reason it seems so fleeting is the continued increase in activity which involves all of us in organized medicine. The past year, I feel, has been a good one for KMA. We have been fortunate with our excellent leadership and staff to approach many new and difficult problems with a sense of confidence and, I feel, have handled these situations in a manner which is in the best interest of medicine for our Kentucky physicians and for our patients.

As the activities of the KMA increase, it is always gratifying to see the number of physicians who step forward to give their time and effort to attend meetings and help to guide us and implement the desires of the physicians of Kentucky as directed by the House of Delegates. The influence of KMA and its dedication to the Kentucky physicians is reflected in the continuing high membership enrollment. Our membership continues to increase each year and again I feel that this is due to the ongoing efforts of KMA to aid all physicians in the state and also, by the excellent examples which are set by our KMA leaders.

Many of the delegates, I am sure, have still not toured the new addition to our building on Ephraim McDowell Drive. As I did in last year's report, I would like to again invite all of you to come to the building and the staff would be most happy to see

you and give you a personal tour. The new addition to the building has certainly been a step forward for the KMA Headquarters. It has given us the opportunity to become much more efficient in quarters which are adequate rather than cramped and where we may have several meetings in progress at one time rather than a single meeting room. I feel that you would enjoy seeing this. After all, this is your headquarter's building, and we would like for you to know it and appreciate it as much as we do.

The activity in our organization has increased a great deal this year and much of it has been directed toward some of the new nationally sponsored health programs. As you are all aware, HMO's and PSRO's are receiving a great deal of attention at this particular time. I feel that your staff at KMA Headquarters and the men entrusted to studying these new areas over the medical horizon have done a superior job in sorting out all of the difficult material and developing plans which I feel will be excellent for the physicians of Kentucky. The development of the new Kentucky Peer Review Organization is innovative and I feel will be a plan which will keep Kentucky far ahead of the field in the development of a professional standards review organization. It is well that this is a plan designed and which will be implemented by the physicians of Kentucky, for the physicians of Kentucky, and should, with your support, accomplish what is best for all physicians in Kentucky.

The Judicial Council will file a separate report, but as Secretary, I sit on the Judicial Council as well as the Board of Trustees and the Executive Committee. The Judicial Council, as you know, is the final arbiter in questions of medical ethics. A number of inquiries have been directed to the Judicial Council over the past year and I feel that these have been handled in an excellent manner by our Judicial Council and also by involved trustees who have been of invaluable service in assisting on some of these problems for us. The Council attempts to resolve a problem as much as possible through the organization at the trustee level. At times several trustees from neighboring counties will meet and aid the Judicial Council in making a decision. This has been an outstanding arrangement and I want to commend and thank all of the trustees who have been so helpful to the Judicial Council this year.

The representatives on the Board of Trustees and on the Executive Committee, as well as the men on the numerous other committees at KMA have spent many long and arduous hours. Their willingness to give up their time to attend these meetings is one of supreme sacrifice and I, for one, am very grateful and very proud of all of these gentlemen who have given of themselves for the promotion of good medical care in Kentucky.

As I have done in the past in the Secretary's report, I will review for you the number of meetings which have been attended by physicians who are involved in executive work at KMA and the KMA staff. From August 1, 1973, to July 31, 1974, the Board of Trustees met seven times. There was a combined total of 150 physicians in attendance. Total physician hours were 720, and 25,790 physician miles were traveled.

The Executive Committee met six times with a combined total of 42 physicians in attendance and total physician hours of 198 with 6,545 physician miles traveled. Out-of-state meetings involving physicians and KMA staff numbered ten requiring 34 total days out of the state. Representatives attending the meetings included 59 members and there was a total mileage of 64,300. Other KMA Committee meetings during the year totaled 84, with total physician hours of 1,368, total physician miles traveled was 68,842 and total physicians in attendance was 486.

The total mileage of the Executive Committee, Board, and other committees was 101,177; a total mileage of all of the above meetings plus the out-of-state meetings was 165,477.

I think the thing to specifically note in this statistical report of activities of the KMA committees is that in 1969, 48 committee meetings were held compared to 84 in 1974. The physician hours tied up in meetings almost doubled as did the number of miles traveled. I feel that this certainly indicated the increased activity of KMA from 1969 to 1974.

Our KMA staff as always, has done a marvelous job of organizing and staffing the numerous committee meetings as well as the Board of Trustees and Executive Committee meetings. It is difficult for one to realize the amount of time and effort which the staff puts into gathering all of the material which is needed to set up a meeting, contacting the members, making sure that they are aware of the meetings and the time of the meetings and carrying through those duties which are necessary to conduct the meeting in a proper manner. The organization, in preparation for the Annual Meeting, is begun as soon as the previous Annual Meeting is over. This is a never ending task and certainly the fact that all meetings are so well attended and so smoothly run attests to the devotion and ability of our KMA staff. I would certainly like to give all of our staff a very sincere and well deserved vote of appreciation for their continued excellent work.

The coming years in medicine, I feel, are going to be good ones for both the physician and for increased attention to devoting ourselves to the promotion of quality care for our patients. We are determined to continue to pursue the objectives for which our organization was founded and that is for the delivery of the best medical care possible to the citizens of the Commonwealth of Kentucky.

S. Randolph Scheen, M.D., Secretary

Recommendations, Reference Committee No. 1

The Report of the Secretary has been reviewed by the Reference Committee. The number of physician hours and the miles traveled attest the work done by our officers.

Mr. Speaker, I move the adoption of this section of the report.

(Motion was seconded and carried.)

Report of the Editor

The *KMA Journal* has continued throughout the past year to portray the activities of Kentucky physicians, both in the realms of practice and academic

medicine. We have tried to continue our emphasis on continuing medical education, with multiple departments devoted to this activity. We especially commend Doctor Charles Smith, our Scientific Editor, and the Board of Consultants for their fine work throughout the year in evaluating and processing papers submitted. We are pleased to report that the quality of papers submitted continues to be high, and the quantity continues to be more than adequate to produce a *Journal* of which we can be scientifically proud.

The fiscal picture of the *Journal* is not so bright; the rising printing costs, coupled with continuing problems with regard to advertising priorities on a national level, force us to concern ourselves with finances frequently. It is to be hoped that advertisers will continue to see that the personal attention of the physician is more often gained through journals of this sort than through mass media; for the moment we are able to continue on our present course.

Mrs. Diane Maxey, our Assistant Managing Editor, has been a tower of strength for us throughout the past several years, and we reluctantly bid her farewell as she returns to more pressing family duties (i.e., her second child) at this time. We wish her well, and offer our thanks for a job extremely well done.

As always, the Editorial Board continues strong in the feeling that the state *Journal* has a unique and valuable place in the affairs of physicians in Kentucky, and we propose to continue to develop our value to this constituency.

Walter I. Hume, Jr., M.D.,
Editor and the Editorial Board

Recommendations, Reference Committee No. 1

The Report of the Editor has been reviewed, and we would like to congratulate the editorial board for a fine *Journal*.

Mr. Speaker, I move the adoption of this section of the report.

(Motion was seconded and carried.)

Report of the Treasurer

You will find enclosed in your House of Delegates envelope a Statement of Financial Condition of the Kentucky Medical Association as of June 30, 1974, a Statement of the Changes in the Fund Balances, and Condensed Statements of Income and Expense of the Current Fund, Reserve Fund, McDowell House and the Postgraduate Medical Education Fund for the year ending June 30, 1974.

The complete report of audit for the fiscal year ending June 30, 1974, is available to all members of the Kentucky Medical Association at the KMA Headquarters Office, 3532 Ephraim McDowell Drive, Louisville, Kentucky.

At this meeting in 1970 we increased our dues within the scope of a five year financial plan. Even though the costs of conducting our affairs has skyrocketed more than anticipated, we have kept within the limits of our five year plan. You will need next year to again adopt a new dues structure to fit into a new financial plan.

Keith P. Smith, M.D., Treasurer

The Report of the Treasurer has been reviewed by the Reference Committee. We had testimony from the auditor as well as members of the Board of Trustees indicating that the financial affairs of the organization are in order.

Mr. Speaker, I move adoption of this section of the report.

(Motion was seconded and carried.)

Report of the Delegates to the AMA

The House of Delegates of the AMA has met on two occasions since our last report; in Anaheim, California, December 1-5 and in Chicago, from June 23-27, 1974. A variety of topics were considered during these meetings.

At the meeting in Anaheim, the House of Delegates met for 14 hours and 36 minutes and acted on 67 reports and 81 resolutions for a total of 148 items of business.

The issues of importance ranged from PSRO to malpractice problems to proposals for improvements of health care delivery for migrant workers, and the method of election—and terms of service—of the members of the Board of Trustees and Delegates.

PSRO, which was of paramount importance, saw more than four hours of reference committee testimony, and two speeches were given on the floor of the House of Delegates; one by the Assistant Secretary for Health, Education and Welfare, Charles C. Edwards, M.D., and what amounted to a rebuttal by Representative Philip M. Crane (R) from Illinois. The House, after much deliberation and consideration, accepted a substitute PSRO resolution which affirmed the following principles:

1. That the medical profession remains firmly committed to the principle of peer review, under professional direction.

2. That medical society programs of proven effectiveness should not be dismantled by PSRO implementation.

3. That the Association suggests that each hospital medical staff, working with the local medical society, continue to develop its own peer review, based upon principles of sound medical practice and documentable objective criteria, so as to certify that objective review of quality and utilization does take place; to make these review procedures sufficiently strong as to be unassailable by any outside party or parties; and that the local and state medical societies take all legal steps to resist the intrusion of any third party into the practice of medicine.

4. That the House of Delegates, as individual physicians and through the Board of Trustees and its Council on Legislation, work to inform the public and legislators as to the potential deleterious effects of the law on the quality, confidentiality and cost of medical care; and the hope that the Congress in their wisdom will respond by either repeal, modification, or interpretation of rules which will protect the public.

The President of AMA, Russell B. Roth, gave a discussion regarding complex issues surrounding peer

review and Professional Standards Review Organizations, outlining his position regarding the policy of the AMA at the present time. He stated that the solution of medical problems is a definite challenge and that the AMA must meet it forthwith, adding that medicine should put forth its best efforts in competence, integrity and motivation of the medical profession to improve the overall medical care of the United States.

Physicians, Hospitals, and Medical Schools

The AMA considered the question of pre-certification of hospital admissions and the House directed the AMA to take all steps necessary to prevent enactment of this regulation.

Report C of the Board of Trustees recommended continuing AMA efforts to secure balanced funding for medical education and research. This report was adopted by the House.

The House adopted a resolution that offers the American Hospital Association the cooperation of the AMA in deliberations regarding the AHA Quality Assurance Program. For the time being, however, the AMA is on record as disapproving the QAP in its present form.

Third party programs and teaching rounds were considered and the use of private patients in teaching programs was adopted by the House and was referred to the Judicial Council and the AMA Legal Department with instructions that a report should be filed with the Board of Trustees.

The House adopted Report F of the Board of Trustees recommending that the present National Intern and Resident Matching Program remain in effect. The reference committee, however, had recommended that this be further investigated by a liaison committee on Graduate Medical Education and the Coordinating Council on Medical Education.

Physicians and the Public

Health and Migrant Workers — The House recommended the development of a nationwide health insurance program for migrant workers as one possible method to resolve this health problem. It was stipulated, however, that this should be not a charity program, but that people who provided care to migrant workers should be paid for their services. The Council on Medical Service was instructed to develop a version of such an insurance program.

Confidentiality of Records — The House adopted Report D of the Council on Medical Service which described efforts to find practical solutions to problems related to maintaining the confidentiality of patient records. The House also asked the Council to prepare model legislation that would preserve confidentiality.

Alcoholism — Resolution 30, which was adopted by the House, called for the medical treatment and admission of alcoholics to be improved. The resolution recommended, also, that the fact of admission for treatment of alcoholism should not be masked, and urged the Joint Commission on Accreditation of Hospitals to implement the intent of the resolution as one of its requirements for approval. Insurance com-

panies and prepayment plans were urged to remove unrealistic coverage for treatment of alcoholics.

Health Care for the American Indian — The House adopted and referred to the Board of Trustees a report by the Council on Medical Services and its Committee on Health Care of the Poor regarding proposed improvements in Indian Health Services.

National Blood Program — The concept of the proposed AMA plan to implement the government's National Blood Policy by organizing blood banks and transfusion facilities within a national system that retains regional and local responsibilities and authority was endorsed by the House.

Definition of Death — Because of the complex legal ramifications, the House adopted a policy position that at present the statutory definition of death is adequate and no further specifics were mentioned.

Miscellaneous Actions of the House

The House referred to the Council on Medical Service a resolution urging the AMA to oppose wide differences in fees for medical services and recommended a report on this problem. In other actions the House:

- Adopted a report recommending that summaries of court decisions on informed consent be made available to physicians on request.
- Adopted a substitute resolution calling for the Board of Trustees, the Interns and Residents Business Section, the Council on Medical Service, and the Council on Medical Education to develop principles and guidelines for agreements between house staff and their institutions and to explore the development of a model contract.
- Adopted a report of the Council on Medical Service outlining progress made in persuading the Aetna Life and Casualty Company to limit the use of its surgical predetermination form.

The Annual Meeting in Chicago on June 23-27, 1974, again was dominated by material pertaining to PSRO, the method of election of AMA Trustees, PSRO need for confidentiality of medical records, and new recommendations affecting relationships between Hospitals and Hospital Medical Staffs. The meeting required a total of 19 hours and 38 minutes, and the House acted on 66 reports and 137 resolutions for a total of 203 items of business.

The House approved a Bylaws change that replaces the "slot method" of election of candidates for Board vacancies with an at large election method. In the process of the election, Kentucky was successful in getting Hoyt D. Gardner of Louisville, Kentucky, elected for a three-year term on the Board of Trustees. The business session of the House of Delegates was highlighted by the appearance and address of the Vice President of the United States, the Honorable Gerald R. Ford, who advocated some type of national health insurance but warned that, in the process of its development, there should be no further erosion of patient confidentiality. Vice President Ford recommended to the House, that with the vast resources of the nation, there is "no excuse for a single American to be deprived of the finest treatment available." He indicated that a national health

insurance program is a necessity in view of catastrophic illnesses and the more effective use of medical resources.

The Vice President stated that he was in favor of a free enterprise approach to health care delivery involving private and voluntary medical philosophy and that, at the present time, with the diversity of NHI proposals in Congress, he felt there might be a willingness to compromise in this respect. Of interest also were his comments regarding avoiding bureaucratic intervention between doctor and patient and the rights and privacies of both.

In his inaugural address, President Malcom C. Todd, M.D., urged the AMA to sponsor the development of a national policy on health, to place all needs and goals in focus, and stated that a tremendous amount of confusion existed in the health-care scene as presently being presented. Doctor Todd emphasized the fact that organized medicine must take the lead in Washington in order to influence the Congress regarding what types of health care legislation should be put in effect. His address to the House was well received.

Physicians and the Government

As previously mentioned, PSRO discussions dominated the attention of those attending the convention, including the news media. The House developed a clear-cut, definitive position and a copy of the final resolution adopted is enclosed for your review. This resolution instructs the Board of Trustees to seek constructive amendments to the PSRO program in potentially dangerous areas such as confidentiality, malpractice, development of norms, quality of care determinations, and the authority of the secretary of HEW; directs the AMA to achieve legislation which allows the profession to perform peer review according to established medical philosophy and the best interests of the patient; and emphasizes that state associations which elect non-compliance with PSRO are not prevented from doing so by the new policy.

—Extension of Policy on National Health Insurance

—Two statements on national health insurance were adopted after a lengthy debate. One calls on the Board of Trustees to cooperate with state associations to attempt to devise mechanisms acceptable to the private insurance sector which will ensure the provision of insurance coverage through private health insurance, and to seek means to secure favorable Congressional and public support for their adoption. The second resolution calls on the AMA and component associations to work to detach any national health insurance program from the controlling intrusions of existing PSRO laws and regulations.

—Support of Drug Industry — The House adopted two resolutions bearing on drugs. One directed the AMA to continue its support of the pharmaceutical industry in efforts to develop and market pharmaceutical products meeting proper standards of safety and efficacy. The other directs AMA to exert all efforts to amend or repeal the Kefauver-Harris Drug Amendments of 1962 which gave the FDA broad new powers in drug manufacturing and marketing.

—The House of Delegates went on record as being opposed to certain Bills in Congress which would replace the federal Health Professions Educational Assistance Act by public utility type bodies which would control certain aspects of health education and health care delivery, and medical licensure.

Other actions affecting physicians and the government were:

To direct the AMA to seek an extension from 30 to 90 days to respond to proposed health regulations printed in the *Federal Register*; to call on the AMA to oppose the concept of claims rejection on the basis of diagnostic admission or lack of medical necessity without prior physician notification; to recommend that the AMA work with third parties to secure increased acceptance of the AMA uniform health insurance claim form; urge continued AMA efforts to prevent future imposition of government fee controls, and to oppose the mandatory imposition of a health card as the payment mechanism under the Administration's National Health Insurance plan and instead, reaffirm the right of the physician to bill patients directly.

Physicians and the Public

The House adopted two reports bearing on the confidentiality of medical records, and also directed that the Board of Trustees have ready for consideration by the House at the 1974 Clinical Session in Portland, Oregon, model confidentiality legislation.

Health Insurance for Migrant Workers — The delegates supported in principle a report from the Council on Medical Service on the development of a nationwide health insurance program for migrant workers. The report was referred to the Board of Trustees for drafting of appropriate legislation.

Transport of Radioactive Material Via Airlines — The House put the AMA on record as recommending that the shipment of radioactive materials for medical use via airlines be under strictly enforced, existing federal regulations which guarantee a low potential hazard.

In other actions affecting physicians and the public, the House directed that: The new national blood policy be privately implemented through the organization of the AMA, and state and county medical societies; the AMA continue to inform the public and the profession of the potential problems and risks in permitting non-physician substitution of drugs of choice prescribed by physicians.

Physicians, Hospitals, and Medical Schools

The House adopted the 104 page Report on Physician-Hospital Relations, 1974, compiled by the Council on Medical Service and its Committee on Private Practice. This report contains many specific recommendations to cope with problems developing between some hospitals and their medical staffs. Among other things, the recommendations are aimed at protecting medical staffs against unilateral action by hospital governing boards relative to staff Bylaws, rules and regulations.

—*Students, Interns and Residents*—Two informational reports dealing with possible guidelines for

house staffs in developing contracts in institutions in which they serve generated considerable discussion before Reference Committee C. Many testified concerning these problems and because of the complexity and importance of the issue, the resolutions were referred to the Board of Trustees for further study and consultation with appropriate groups. The report will then be resubmitted at the 1974 Clinical Session. The House also adopted a resolution calling for AMA, through appropriate committees and councils, to assure due process for medical students, and requested a further report at the next Clinical Session. Another report proposing guidelines for fair, professional relationships between training institutions and house officers was referred for further study to be reported back at the next Clinical Session. A resolution was adopted calling on the AMA to encourage and urge medical schools to implement a series of lecture programs for students on the socio-economic aspects of medicine.

—*New Liaison Committee on Medical Education*—The Delegates adopted Board of Trustees Report I calling for the establishment of a new Liaison Committee on Continuing Medical Education. The structure and duties of the new committee have been worked out by representatives of the AMA, the American Board of Medical Specialties, the American Hospital Association, the Association of Medical Specialties, and the Council of Medical Specialty Societies.

Association and Internal Matters of the House

—*Specialty Representation in the House*—In response to proposals to increase specialty representation in the House, the Reference Committee on Constitution and By-laws reported extensive testimony, and urged all concerned parties to increase communication, cooperation and liaison to resolve the complex question. The House adopted the reference committee report and referred Report H of the Board of Trustees containing proposed modifications in the House to the Council on Constitution and Bylaws.

—*Malpractice Problems*—A resolution calling on the AMA and constituent societies to institute a nationwide education program to inform the public of malpractice problems and for the AMA to spearhead state and federal legislation to correct malpractice inequities was referred to the Board of Trustees and its Committee on Insurance for report back at the 1974 Clinical Session.

—*In other Internal Matters*, the House: requested changes in the Constitution and Bylaws to permit additional scientific sessions on a regional basis; instructed the Board of Trustees to distribute to each delegate, alternate delegate and constituent state association a summary of actions taken at each meeting of the Board; adopted a resolution to amend the Bylaws to make past AMA vice presidents ex-officio members of the House; rejected the establishment of a nominating committee for councils of the House; changed the name of the Section on Plastic and Reconstructive

Surgery to the Section on Plastic, Reconstructive and Maxillofacial Surgery; stipulated that Board reports nominating members of the Council on Medical Education contain a breakdown of current members' status to ensure a proper balance between fulltime educators and private practitioners; rejected a proposal that AMA delegates be chosen by popular election within their respective state medical associations; adopted a substitute resolution calling upon the AMA to recognize "brain death" as one of the various criteria by which death may be medically diagnosed.

The foregoing information is only a resume of the action taken by the House of Delegates of the AMA at its 1974 Clinical Convention, and 1974 Annual Session. Full information is available to you through the KMA Headquarters Office.

Along with the entire AMA delegation, I would like to thank the KMA officers and staff for their help in the organization and report of this year's activities of the AMA House of Delegates to the KMA membership.

J. Thomas Giannini, M.D., AMA Delegate

Recommendations, Reference Committee No. 1

The Report of the Delegates to AMA has been reviewed. We wish to commend the delegates on a very complete report on the activities of the AMA at both the Clinical Session and the Annual Meeting.

Mr. Speaker, I move the adoption of this section of the report.

(Motion was seconded and carried.)

Report of the Executive Director

In recent years I have tried to take different approaches in writing the Executive Director's Report to the House of Delegates. It is a frustrating chore to try and convey the unlimited number of thoughts that go through one's mind when there is such a strong desire to convey to the membership the volume of work centering around the Headquarter's Office, the impact of that work on individual physicians and the public generally and the constant challenge to get even more done with the people, equipment and facilities available to us.

This year my report will constitute this combined introduction and summary rolled into one because there are just too many things I would like to say for which limited space will not permit.

On behalf of the KMA staff, I wish to express our gratitude for the opportunity of working with the people in the world's greatest profession and for the programs created within and by that profession. A special thanks goes to all officers, Board members, committee members and others who give us our day to day guidance.

I wish I could think of the appropriate words to report to you on the KMA staff, your employees. Their loyalty, untiring efforts, productivity, initiative, and desire to see the job done quickly, effectively, and efficiently and without complaint has to be second to none. Long working days are routine for many. They rate over 100 percent in every category and I feel

you can be justly proud. To view the day to day activities of your Headquarter's Office from the viewpoints of volume and versatility of work produced would probably be overwhelming when compared to what the individual member might imagine. This, I assume, is really as it should be. KMA is big business with total assets and an annual budget of approximately \$2,000,000.00. We continue to operate in a conservative fashion but new and costly problems spring up endlessly. Financial management is an interesting challenge in itself.

To give you a synopsis of the month to month activities of KMA, I had file copies of our correspondence summarized to show the diverse areas of Association activities from last October to August when this report was written. Two facts become quickly evident. One was that so much of our work is not indicated on any correspondence. The other is that the report I received was still too voluminous to include in this report to the House even when cut to a bare minimum. For that reason, I'll try not to summarize a day, a week or a month at KMA. However, I will file with the Reference Committee a copy of the "Correspondence Activity Summary Report" in addition to the Headquarter's Office report which is presented routinely to the Board of Trustees.

These two reports document some of the labors of staff. Other staff activity can be seen in the programs and activities contained in your committee reports and I feel speak for themselves. Yet after a thorough study of all this, I would suggest a multiplication factor of ten might be applied to really visualize the "beehive" type of atmosphere that is now accepted as normal for any medical association office.

Continuity of proven programs, meeting the daily challenges of a changing society while planning for future demands require the total commitment of your officers and staff. KMA is fortunate to have people who accept those challenges as opportunities to serve the profession.

This year I have one new aspect for my report. I bring it to you, perhaps not with sadness, but at least with mixed emotions. I say not sad because I hope to join his ranks some day and hopefully it will be a happy occasion.

Mr. Gilbert Armstrong came to KMA some nine years ago. With no background in our type of organizational activity, he was hired somewhat cautiously. Any hesitancy that existed was quickly removed however, and his loyalty and untiring efforts are now history.

In a relatively short time his assignments made him well known to all sectors of the medical community. Head staff man for the Rural Kentucky Medical Scholarship Fund brought him into close contact with students. Being in charge of the KMA placement service gave him an edge on getting to know physicians just going into practice. As Director of Field Service, he spent much time during his first two years traveling the state . . . taking KMA to physicians in their own back yard. Here he also had an opportunity to meet community leaders and legislators while they were "at home".

This foundation assisted him in becoming known as one of the best lobbyists to work the halls of

Frankfort. With praise coming from physicians, allied groups as well as legislators, we lean back with pride knowing he's "our man". The onslaught of governmental medical programs demanded a new twist for Gil as he became our specialist in all of them, Medicare and Medicaid included. Like every medical executive must, he became a jack of all trades . . . and did them all well.

Gil will retire before the next KMA Annual Meeting. At the end of next June, he and his wife, Martha, will slacken their pace and while they will have the time to enjoy a more leisurely life, we will be missing both of them at 3532 Ephraim McDowell Drive. To my knowledge, he is the first KMA Executive to retire. We wish him well and publicly say thanks for a job well done.

Robert G. Cox, Executive Director

Recommendations, Reference Committee No. 1

The Report of the Executive Director has been reviewed by the Reference Committee. We would like to complement this report with a resolution of the Reference Committee as follows:

WHEREAS, Mr. Gil Armstrong came to the Kentucky Medical Association Executive Staff some nine years ago, and

WHEREAS, he provided distinguished executive service to the Rural Kentucky Medical Scholarship Fund, the Kentucky Medical Association Placement Service, and as the Director of the Office of Field Service, and

WHEREAS, in these capacities he has effectively taken the services and programs of the Kentucky Medical Association to physicians in practice, physicians entering practice, and students looking forward to practice, and

WHEREAS, Gil Armstrong became one of the most effective lobbyists in the legislative halls of Frankfort, and

WHEREAS, he has been "our man" in Frankfort, with praise for his efforts and effectiveness coming from physicians, allied groups concerned with health care, and legislators because of the integrity of his approach and the quality of the information he was able to transmit on behalf of the Kentucky Medical Association, therefore be it

RESOLVED, that Mr. Gil Armstrong be formally recognized and commended by the House of Delegates of the Kentucky Medical Association for his outstanding contributions to organized medicine, and be it further

RESOLVED, that he receive this resolution in person in an appropriate form and a proper occasion.

Mr. Speaker, I move the adoption of this section of the report.

(Motion was seconded and carried.)

Report of the Advisory Committee to the Woman's Auxiliary

The Advisory Committee to the Woman's Auxiliary met once during the 1973-74 Associational year. The Committee reviewed in depth with the

officers of the Auxiliary the programs in which the Auxiliary was interested and discussed at length the ways in which the Advisory Committee could be of continuing assistance to the Auxiliary.

We are of the opinion that this particular committee can serve a very worthwhile purpose and should be continued as an active committee of KMA.

Hoyt D. Gardner, M.D., Chairman

Recommendations, Reference Committee No. 1

The Report of the Advisory Committee to the Woman's Auxiliary has been reviewed.

Mr. Speaker, I recommend adoption of this section of the report.

(Motion was seconded and carried.)

Report of the Ad Hoc Committee on Finances

An Ad Hoc Committee on Finances was appointed during the year to submit a report to the House of Delegates. In keeping with the instructions contained in the 1973 President's Report to the House, we received the following report for our consideration from the Budget Committee:

Report of Budget Committee to Ad Hoc Committee on Finances

The Budget Committee met on March 7, 1974, with the President-Elect, Chairman of the Board, Treasurer, and Immediate Past President, to finalize the 1974-75 Fiscal Year Budget, and to discuss, study, and submit recommendations concerning the Immediate Past President's Report to the House of Delegates; the pertinent portion reading as follows:

All of us have felt the pinch of fixed incomes and rising costs. It has only been through diligent handling of our financial affairs that we have not seriously depleted our standing reserves, which we should definitely maintain at safe levels. There are numerous approaches that come to my mind that I feel should be considered in maintaining the proper services to the profession.

Having spent a number of years in seeing from the inside what KMA does for us and noting the budget requirements and management, with the endorsement of the House of Delegates, I would do the following:

A. Meet with the Budget Committee with a charge to take both an immediate and long-term look at KMA financing.

B. Consider with the Budget Committee the possibility of setting a dues base for KMA members which would be flexible to an adjusting, plus or minus, sliding scale by being tied to some recognized cost factor such as the cost of living index, etc. This should eliminate any dues increases other than routine adjustments except when the House of Delegates requests new, costly programs requiring additional funding. (We should at least maintain our purchasing income at a constant level. It seems we should

not need to vote to change our Bylaws for an additional \$4 to \$5 every year or so to maintain this level.)

C. Thoroughly investigate the concept of generating income to supplement or replace dues increases.

D. Request the Chairman of the Board to name four Trustees and the Speaker of the House of Delegates to name four members of the House of Delegates, which would form an ad hoc committee to accept any recommendations from the Budget Committee when such specific recommendations are available. The above-named ad hoc committee would then receive these recommendations for study and would submit a report to this House of Delegates for whatever action may be indicated.

Lee Hess, M.D., the Immediate Past President, noted his concern about the reserve fund and stated that he had discussed this matter with others and felt that an organization such as KMA should have a one-year operating expense reserve fund.

Doctor Hess also said he felt KMA needed an automatic method of setting an upper limit of dues whereby the Budget Committee could revise the dues structure upward or downward within these limits to balance the budget without going to the House of Delegates.

Doctor Hess further stated that to get away from the current, fixed income, that some consideration might be given to the following: 1) adjust dues annually to the Cost of Living Index; or 2) authorize the Budget Committee to adjust dues within limits as stated above.

The Committee members felt that it might be appropriate to get the feeling of the members of the House of Delegates at the 1974 session so that more definitive plans could be made when an increase is scheduled to be presented in 1975. The Committee feels the House should consider the above two methods and also the way dues increases are currently handled, which is asking for a dues increase every few years, explaining the reason for the increase to the membership, and making it large enough to last a few years, rather than smaller, annual adjustments.

The Budget Committee recommends the Special Ad Hoc Committee present a report to the House of Delegates asking the House their preference for dues increases considering the following:

- 1) Adjust to the Cost of Living Index.
- 2) Budget Committee adjust dues to balance budget with a maximum limit set by the House of Delegates.
- 3) Continue under the present system.

In making the above recommendations, the Budget Committee notes that a five-year dues plan was adopted in 1970, and we are well within our projected financial position. The Committee members do note, however, that this projection calls for the elimination of the reserve fund by January 1, 1976.

Fortunately, through the efforts of the KMA officers and staff, the reserve fund will hopefully not be eliminated, although some of it will have to be utilized in the 1975-76 fiscal year.

It is not considered to be in the Association's best interest to deplete or even partially deplete the reserve fund. We would propose that in KMA finance planning for the future, the Association should always maintain a solid reserve fund, perhaps at least \$200,000, if not in fact an entire year's operating expense.

Your Ad Hoc Committee has reviewed the above report and wishes to adopt it as its full report to the House of Delegates. The main thrust of this report is to determine the method that the House would most prefer be utilized in raising the dues in the future. We further feel that the reserve fund should be maintained by raising the dues a sufficient amount each time they are elevated to build and maintain a sound reserve fund.

My appreciation is expressed to the members who served on this Committee. Representing the Board of Trustees, in addition to myself, were: John P. Stewart, M.D., Frankfort; Harold L. Bushey, M.D., Barboursville; and Edward N. Maxwell, M.D., Louisville.

Representing members of the House of Delegates were: Richard F. Hench, M.D., Lexington; Charles D. Eversole, M.D., Covington; A. B. Richards, M.D., Louisa; and Edwin T. Davis, M.D., Paducah.

Paul J. Parks, M.D., Chairman

Recommendations, Reference Committee No. 1

The Committee has reviewed the Report of the Ad Hoc Committee on Finances. Based upon testimony from the Budget Committee, the auditor, and information from staff, we recommend that the House of Delegates instruct the Budget Committee to create a new five-year plan for consideration in 1975. The Reference Committee anticipates such a plan will recognize the need for a dues increase to cover operating expenses and increase in reserves based upon full and appropriate justification.

Mr. Speaker, I recommend adoption and implementation of this section of the report.

(Motion was seconded and carried.)

Resolution V

Jefferson County Medical Society

WHEREAS, we realize the impossible task of scheduling any meeting as large and complicated as the Kentucky Medical Association and please everyone involved, and

WHEREAS, we realize many outside factors concerning the place, size, dates, and the program are involved over which KMA has little or no control, and

WHEREAS, we also realize that previous consideration has been given by the KMA Board of Trustees to the problem of the annual meeting dates as they conflict with the Jewish High Holy Days and Yom Kippur, and

WHEREAS, a representative number of physicians of the Jewish faith are among the JCMS and KMA Delegation, therefore

RESOLVED, The House of Delegates show its concern for the faith of Jewish physicians by instructing the KMA Board of Trustees to work toward

the scheduling of the KMA annual meetings around their Holy dates or at least provide a satisfactory explanation in writing which can be distributed to the membership as an explanation listing the reasons why change of dates could not be accomplished.

Recommendations, Reference Committee No. 1

Reference Committee No. 1 considered Resolution V submitted by the Jefferson County Medical Society concerning Jewish High Holy Days-KMA Meeting Dates. The Committee approves this resolution with the deletion of "... or at least provide a satisfactory explanation in writing which can be distributed to the membership as an explanation listing the reasons why change of dates could not be accomplished." This would then make the RESOLVED to read as follows: "RESOLVED, the House of Delegates show its concern for the faith of Jewish physicians by instructing the KMA Board of Trustees to work toward the scheduling of the KMA annual meetings around their Holy dates."

Mr. Speaker, I move the adoption of this section of the report.

(Motion was seconded and carried.)

Mr. Speaker, I move the adoption of the report of Reference Committee No. 1 as a whole.

(Motion was seconded and carried.)

Mr. Speaker, as chairman, I would like to express my thanks to the members of Reference Committee No. 1 for their help in preparation of this report and to Miss Karen Browning for her excellent work in preparing this report.

REFERENCE COMMITTEE NO. 1

Glenn W. Bryant, M.D., Louisville, Chairman

Peter P. Bosomworth, M.D., Lexington

Don E. Cloys, M.D., Richmond

C. Douglas LeNeave, M.D., Mayfield

Robert E. Smith, M.D., Covington

REFERENCE COMMITTEE NO. 2

Richard F. Hench, M.D., Lexington, Chairman

Reference Committee No. 2 considered the following reports and resolutions:

15. Report of the Scientific Program Committee
16. Report of the Scientific Exhibits Committee
17. Report of the Hospital Committee
18. Report of the Emergency Medical Care Committee
23. Report of the Cancer Committee
37. Report of the Interspecialty Council; all except the last two paragraphs on page 37.2, which are referred to Reference Committee No. 3
12. Report of the Kentucky Foundation for Medical Care; *only* KFMC 4 dealing with the KFMC Continuing Medical Education Committee and KMA Medical Education Committee
38. Report of the KMA-KNA Joint Practice Committee; the last paragraph on page 38.2 through the second paragraph on page 38.3 *only*, which deals with continuing education

Resolution A—Continuing Education Requirements for Kentucky Physicians (KMA Medical Education Committee)

Resolution K—Foreign Medical Graduates (Adair County Medical Society)

Resolution L—Primary Care Practice of Medicine (Adair County Medical Society)

Resolution M—Report of the Committee on Goals and Priorities of the National Board of Medical Examiners (Adair County Medical Society)

Resolution N—Medical Licensure Fees for Kentucky Physicians (Adair County Medical Society)

Resolution T—Accreditation of the Kentucky Medical Association to Award Continuing Medical Education Credits (Pennyryle Medical Society, Inc.)

Report of the Scientific Program Committee

The KMA Scientific Program Committee met this year in November to plan the Scientific Program for the KMA Annual Meeting. As a result, ten months of hard work have been put in by your Committee and staff in coordinating the program.

Early in the Associational year, your Chairman and the KMA President met with 17 specialty group presidents to discuss their participation in planning the Scientific Session. The Scientific Program of the specialty groups held in conjunction with our General Sessions have proven to be valuable, and we feel provide an excellent contribution to the continuing education of our members.

I am appreciative of the splendid cooperation in the planning of the overall meeting we always receive from the specialty groups.

We are looking forward to holding our meeting for the second year at the Ramada Inn, Bluegrass Convention Center. Those in attendance last year were very enthusiastic about returning to its very pleasant surroundings. The Scientific Program Committee's objective is to present an appealing and educational program that will provide maximum benefit to the members of KMA; and certainly providing this educational program in a pleasant atmosphere will be helpful.

It has been the Committee's experience in the past that the selection of themes for portions of the Scientific Program has proven to be beneficial and that policy has been carried over into this year's sessions. Themes are designed to maintain continuity of the Program and afford an opportunity for in-depth coverage of the subject.

This year's program will be comprised of individual presentations and the Committee members and specialty groups have gone to great lengths to bring in who, we feel, are some of the country's outstanding speakers. In addition, the Committee has developed some changes in format for the Scientific Sessions with regard to visual aids which we hope you will find appealing.

In an effort to make the Scientific Program more beneficial to the membership and to draw on the

experience that our speakers have had with other state meetings, the Committee has designed a survey form which will be sent to all speakers following the meeting asking them to critique the meeting to help us do a better job next year.

This year, as in the past, the South Central Bell Telephone Company is sponsoring the message center in the Technical Exhibit Hall. This continues to be a valuable service to our Association membership and we are most appreciative for it.

Your Chairman is thankful to those who assisted in the formation of this program, and I would like to give a special note of appreciation to the Committee members, specialty group presidents and the program chairmen.

Any suggestions the membership might have for future programs will be most welcome.

R. Glenn Greene, M.D., Chairman

Recommendations, Reference Committee No. 2

The reference committee commends the Scientific Program Committee for the program presented this year. The reference committee suggests to the Scientific Program Committee that it investigate the feasibility of having the Basic Life Support Program and the Advanced Life Support Program as presented at the recent AMA meeting as part of the program of next year's KMA meeting or as part of the annual Emergency Health Care Seminar which has been held yearly by the Emergency Health Care Committee.

Mr. Speaker, I move the adoption and implementation of this section of the report.

(Motion was seconded and carried.)

Report of the Scientific Exhibits Committee

The Committee on Scientific Exhibits meets late in the Associational year in order to review applications for scientific exhibit space at the Annual Meeting. As a result, it has become customary for the Committee to submit a final report to the meeting to make sure that it will be included with all committee reports.

This year we hope to have approximately 15 exhibits, which will be located along the entrance to the General Assembly Hall in the Bluegrass Convention Center. The scientific exhibitors will be available to discuss their exhibits and will have special badges and ribbons to identify themselves.

Exhibitors will receive a certificate for participating in this phase of continuing medical education. Our Committee feels that the scientific exhibit is a valuable contribution to post-graduate physician education and is hopeful that everyone attending the Annual Meeting will visit the exhibits.

R. Glenn Greene, M.D., Chairman

Recommendations, Reference Committee No. 2

The reference committee commends the Scientific Exhibits Committee for high quality of the scientific exhibits and the committee feels that these exhibits make a real contribution to the meeting.

Mr. Speaker, I move the adoption of this section of the report.

(Motion was seconded and carried.)

Report of the Hospital Committee

The KMA Hospital Committee met on November 26, 1973, with good attendance.

A continuing review of standards being developed by the Kentucky Certificate of Need and Licensure Board has been carried out by the Committee which include ambulatory and rehabilitation services, day care centers, family personal care homes regulations and intermediate care regulations.

The Committee also recommended and received endorsement of KMA of a resolution by the Kentucky Hospital Association indicating that standards currently used by the Joint Commission on Accreditation of Hospitals should be used as hospital licensing criteria in the Commonwealth rather than instituting a new set of standards which would require new inspections and additional work by the Kentucky hospitals.

The Committee would like to commend the members of the "Dry Run Teams" who throughout the year make themselves available to review hospitals anticipating inspection by the Joint Commission on Accreditation of Hospitals. These visits are accomplished by a few members of the Kentucky Medical Association, KHA and the Kentucky Medical Records Librarians Association for the benefit of all and their efforts are recognized and lauded.

Hospital costs continue to rise and resolution B passed by the House of Delegates in 1972 was again sent to the hospitals throughout the state urging that copies of a bill of a patient of each doctor on the staff be made available periodically to him so that the physician may be aware of charges to his patients.

In addition, efforts are being made to provide factual information for publication in the *Journal of the Kentucky Medical Association* on a regular basis indicating some average costs for commonly used items and services.

Improper utilization of the emergency room is a problem not only in Kentucky but nation-wide and to improve the situation in Kentucky the Committee reviewed a pamphlet developed by the Hospital Council of Southern California indicating proper procedures for emergency room use. Permission was obtained to reproduce this through the efforts of the Kentucky Hospital Association and negotiations are now underway to produce large numbers of these pamphlets so they may be widely distributed throughout the state.

In addition, letters were sent to insurance carriers asking them to reiterate the relationship between hospital-based physicians and coverage for emergency room use. There is often confusion in this area and it is imperative, if a hospital change includes a physician's fee, that it be shown separately on the bill so the patient will be made aware of the services he is paying for. We feel this practice will be useful in helping the patient recognize that physician services in the emergency room are often separate from

hospital charges since many hospitals are now changing from "house staff" coverage to coverage by emergency physicians on a fee-for-service basis.

An inquiry was received regarding possession and ownership of hospital records. The Committee rendered an opinion which was reinforced by legal counsel of the KMA and the American Medical Association.

A report from the Board of Trustees of the American Medical Association was also reviewed and distributed to the membership of the Hospital Committee. This is an excellent statement of the basic problems of the increasing use of the emergency room and suggested recommendations for improving care were noted. Of particular interest was that Kentucky third-party payors, hospitals and the Kentucky Medical Association have already accomplished many of the suggested methods to help provide the best emergency medical service available.

The Chairman would like to thank the members of the Hospital Committee for their aid and assistance during the year.

Richard B. McElvein, M.D., Chairman

Recommendations, Reference Committee No. 2

The reference committee reviewed the report of the Hospital Committee and was pleased to see the educational efforts of the Kentucky Hospital Association to educate patients in respect to more efficient use of hospital emergency rooms. The committee also noted that Resolution B passed by the House of Delegates in 1972 directing that hospitals send copies of a patient's bill to each doctor on the staff at regular intervals to make the physician more aware of hospital costs has not been implemented in the majority of hospitals. The reference committee suggests that the Kentucky Hospital Association reiterate the KMA action of 1972 through a letter to each of the hospital administrators within the next six weeks.

Mr. Speaker, I move the adoption and implementation of this section of the report.

(Motion was seconded and carried.)

Report of the Emergency Medical Care Committee

Your Emergency Medical Care Committee has just completed a very active year. Although the Committee met but once, we were pleased to have representatives of the Emergency Health Services Advisory Committee to Comprehensive Health Planning meet in joint session with us. Your Chairman and a member of staff also attended a meeting of the Advisory Committee. We feel this communication between us is important and helps keep all groups interested in emergency care aware of current activities in many areas.

The largest endeavor of the Committee this year was to plan and implement the 4th Annual Emergency Health Care Seminar which was held May 30 and 31 at the Bluegrass Convention Center in Louisville. Registration approached 350 and we were pleased to have physicians, nurses, emergency medical technicians, state health officials, and representatives of police and fire agencies. We were honored to have

Captain John Waters, Director of the Department of Public Safety, Jacksonville, Florida, and Teresa Romano, R.N., B.S.N., of Chicago, as our featured speakers. The highlight of this year's meeting was a demonstration of a simulated disaster. Several police and fire agencies, as well as ambulance and rescue squads, participated in the demonstration. In addition, one of the air ambulances from Ft. Knox was displayed and part of the crew members took part in the demonstration. We feel the demonstration provided those working in emergency care with a highly visual presentation of some of the newer concepts in extrication and on-the-scene emergency care. The Committee is certainly indebted to all of those who worked to make it a success.

Another feature of the seminar was a half-day session on cardiopulmonary resuscitation. The Committee appreciates the continuing support of those who serve as faculty members for the seminar and who give freely of their time, often traveling from distant parts of the state, to serve as speakers. The Committee enthusiastically urges that next year's meeting again be held in Louisville in spring with specific details such as location and format to be worked out by the Committee.

Last year we reported to you that the Committee was investigating the feasibility of asking that first aid training be taught in all Kentucky secondary schools as a requirement for graduation. A subcommittee made up of the members of the Emergency Medical Care Committee met with school officials and although it appears that first aid training as a requirement is unfeasible, we have the assurance of school authorities that every effort will be made to add this to existing curriculum whenever possible.

We were pleased to note the ongoing interest of the State Department of Highways in the emergency hospital signing along the interstate highways. The Committee learned of one or two new signs put up this year and certainly feels it is of benefit not only to the residents of Kentucky but to those visitors from out of state passing through as well.

In the early part of April of this year, a series of tornados swept through Kentucky causing widespread destruction. In keeping with the time-honored tradition of the physician, many of our members responded to calls for help, taking care of the injured with little regard for their own safety and often after learning that their own homes had been destroyed or badly damaged. The Committee wishes to recognize these members of the profession and to honor these physicians, the following resolution is introduced:

WHEREAS, the Commonwealth of Kentucky was devastated in many areas during the tornados of April 1 and April 3, 1974, and

WHEREAS, these tornados caused untold property damage and great human suffering, and

WHEREAS, immediately following these tornados physicians throughout the Commonwealth rallied to provide hundreds of hours of medical care to victims of the disaster and

WHEREAS, these physicians have not, in our opinion, been sufficiently recognized for their outstanding service, now therefore be it

RESOLVED, that the House of Delegates of the Kentucky Medical Association, meeting in regular session on September 25, 1974, does hereby recognize the outstanding and unselfish service of the physicians who participated in the emergency medical care activities which followed the April tornados, and be it further

RESOLVED, that this House of Delegates does take note of the fact that these physicians, acting in the highest traditions of the medical profession, have brought honor to the profession and have provided outstanding service to all those in need, and be it further

RESOLVED, that this resolution become an official part of the proceedings of this meeting of the House of Delegates so that all citizens of this Commonwealth may be made aware that the physicians, who were so deeply involved in providing such superior emergency medical care under the most adverse conditions, have in this manner been recognized by their peers for that service.

The members of the Committee worked long and hard this year and I would like to express my appreciation to them for their time and efforts extended in the area of emergency health care.

E. Truman Mays, M.D., Chairman

Recommendations, Reference Committee No. 2

The reference committee was pleased to see that the Fourth Annual Emergency Health Care Seminar held on May 30 and 31 at the Bluegrass Convention Center in Louisville attracted nearly 350 registrants. This seminar is obviously a fine educational event. The reference committee proudly reviewed and strongly endorses the resolution lauding the physicians who participated in the care of injured patients during the tornadoes in the early part of April of this year. Physicians and medical students responded in large numbers and in many cases without being called.

Mr. Speaker, I move the adoption of this section of the report.

(Motion was seconded and carried.)

Report of the Cancer Committee

The KMA Cancer Committee has had three meetings and has evinced great interest in cervical cancer screening, in breast cancer screening, in the relationship of vinyl chloride to cancer of the liver, the development of cancer centers at the University of Louisville Medical School and the University of Kentucky Medical School.

It has determined that in the state of Kentucky the laboratories in 1973 have performed 417,525 Pap smears in a population of 1,073,664 women, 20 years and older. This means that 38.89% of all women over the age of 20 in this state have been screened with the Pap smear during that year. In the city of Louisville, 149,514 of 239,653 or 62.4% have had screening during the particular year of 1973. This data was provided by Doctor William M. Christopherson with the 100% cooperation of the Kentucky Society of Pathologists. It was determined

that the cost of performing a Pap smear by the Public Health nurse was \$7.71 per test, which includes the special rate of \$3.00 for interpretation by the pathologist of the state.

The Department for Human Resources, Bureau for Health Services, in its cervical cancer screening program, made a total number of 54,238 tests of women during the year 1973. These cases were from outside of Jefferson County. Thirteen percent of 938,100 women outside of Jefferson County received Pap smears through the cervical cancer screening program of the state.

Your Committee recommends the following to you at this time:

1. That the program of the Bureau for Health Services to obtain increased Pap smear screening in Kentucky be endorsed.

2. That the Public Health nurse in each county be encouraged to obtain a Pap smear on anyone who presents herself and that the report be sent to her physician for followup and disposition.

3. That the one or two proposed mobile units staffed by nurses from the Bureau for Health Services be encouraged to travel over the state for the purpose of obtaining Pap smears, in addition to those performed in the County Health Office by the nurse.

4. That particular effort be devoted to obtaining smears on women over 45 years of age, since the larger number of cancers of the cervix are appearing in the older women.

5. That this program be called a Pap Smear Clinic and not a general Cancer Clinic, in order to avoid misunderstanding.

6. That a training program for Public Health nurses' instruction in breast examination for the discovery of early tumors be encouraged, and that later this be added to the Pap smear clinical activities.

7. That a hospital program as practiced at the Kentucky Baptist Hospital in Louisville, in which trained personnel offer to teach all female patients self breast examination on the request of their physicians, be recommended to all hospitals in the state.

8. That each physician admitting patients to hospitals be encouraged to have his patient have a Pap smear performed as a part of the admission procedure when indicated.

9. At the Annual Meeting of the Kentucky Medical Association, one day or part of a day be set aside for papers on cancer.

10. That the Kentucky Hospital Association be invited to name a member to this Committee.

11. That all ex-officio members of this Committee be named members of the Committee.

The KMA Cancer Committee requests that the KMA endorse these objectives and will approach such specialty organizations particularly involved also for endorsement. These include the Kentucky Academy of General Practice, the Kentucky Obstetrical and Gynecological Society, the Kentucky Society of Pathologists, and others.

It is requested that this be published in the *Journal of the KMA*.

Laman A. Gray, M.D., Chairman

The reference committee reviewed the report of the Cancer Committee and accepted this report for information purposes. The reference committee felt strongly that the proposed mobile units for obtaining Pap smears operate at the invitation of and in conjunction with the county medical society.

Mr. Speaker, I move the adoption of this section of the report.

At this point, the Chairman of the Board of Trustees, Ballard W. Cassady, M.D., was recognized, who read the recommendation of the Board of Trustees as follows: "The KMA Board of Trustees recommends the Report of the Cancer Committee not be accepted." A motion was then entertained from the floor that the House accept the recommendation of the Board of Trustees in not accepting the Report of the Cancer Committee.

(The motion was seconded and carried.)

Report of the Interspecialty Council (With the Exception of the Last Two Paragraphs)

The Interspecialty Council held two meetings this year and major discussion focused on the concept of mandatory continuing medical education. Last year, the KMA-KFMC Committee on Continuing Medical Education made the recommendation that KMA adopt a policy of requiring continuing medical education. There was a good deal of discussion as to what the requirements of such a program would be and whether or not it should be tied to continued membership in KMA or to a periodic license re-registration. The Board of the Kentucky Foundation for Medical Care asked the Interspecialty Council to consider this question. As a result the council members agreed to go back to their respective specialty societies and get their reaction as to whether they felt a continuing education plan in Kentucky should be voluntary, tied to KMA membership, or to license re-registration.

At our meeting on June 4, 12 specialty groups were represented with 10 favoring a voluntary concept, one favoring a tie-in with KMA membership and the other re-registration of license. It is interesting to note, that most of the specialty groups favoring voluntary continuing education in Kentucky did so because national programs for continuing medical education have been developed or are in planning stages as a requirement for retention of specialty certification.

It should be noted however, that national certification programs do not have any effect on state licensure laws; the council members were in agreement that for a continuing medical education program to be truly meaningful, there must be some tie-in with licensure, such as proof of attaining a certain number of continuing education hours or credits for license re-registration.

The council was in agreement that the concern was not with the certified specialist who must maintain a certain level of competency to retain his certification but with the physician practicing in a

specialty area who is not certified and who makes no effort to keep abreast of changes in his field.

Although the concept of mandatory continuing medical education is distasteful to most physicians, it is apparent that public demand for a program of this nature is getting considerable attention from government sources and it would probably behoove us to take the lead in determining our educational needs rather than having them developed for us.

James B. Holloway, Jr., M.D., Chairman

Recommendations, Reference Committee No. 2

The reference committee reviewed the report of the Interspecialty Council; all except the last two paragraphs on page 37.2, and noted the fact that the Council felt that although the concept of mandatory continuing medical education is distasteful to many physicians, it would probably behoove us to take the lead in determining our educational needs rather than having them developed for us.

Mr. Speaker, I move the acceptance of this report for informational purposes.

(Motion was seconded and carried.)

Report of the Kentucky Foundation for Medical Care KFMC Continuing Medical Education Committee KMA Medical Education Committee Only

Two meetings of the whole Committee were conducted this year, the major content of both being the continuing medical education program proposed in the Committee's final report to the 1973 House of Delegates. From the last session of the House of Delegates, the Committee identified its responsibility with regard to the continuing medical education program as: 1) studying implementation possibilities, and 2) developing adequate educational requirements by medical specialty.

With regard to specialty education requirements, the Committee felt that an effective manner of determining the feelings of the various specialty societies with regard to continuing education would be through the KMA Interspecialty Council. Members of our Committee attended a meeting of the Interspecialty Council where a request was posed to Council members that the suggested educational requirements by specialty as submitted in the Committee's 1973 final report be presented to the respective specialty societies for their review, modification, or approval.

From a subsequent meeting of the Council, it appeared that a consensus of opinion concerning requirements by specialty was that continuing medical education should be a voluntary function of the individual specialty society. However, Committee members agreed that our responsibility to establish a system of accreditation for educational centers was not diminished.

To this end, a three-man coordinating group has been appointed to perform implementation planning. By relying on advice and guidance from the American

Medical Association and earlier research by the Committee, this group will develop a statement of essentials of continuing education, devise a written plan for the program, create a form for use by "applicant centers" that states program requirements, and develop a survey report form to determine applicant center eligibility for accreditation. At this point, the program will be publicized and potential applicants will be notified. AMA accreditation for the overall program can then be sought.

With the cooperation of the deans of the university medical schools, the Committee was privileged this year again in selecting recipients for the KMA Faculty Scientific Achievement Award, and we would like to take this opportunity to express our appreciation for the efforts of the deans and their help in this regard. It is worthwhile to note that many of the members of the faculties of both of our fine medical schools are deserving of this recognition and the Committee is pleased to be a part of this process.

Another endeavor of the Committee this year is to begin planning for the upcoming biennial KMA Medical Education Conference to be held during the first part of 1975. From all reports, the last conference seemed to provide a very beneficial exchange of ideas and the Committee feels that the education conference is a worthwhile activity.

At the present time, the Committee has undertaken a feasibility study to determine effective methods of communicating with the membership on medical education activities. It is our opinion that a number of items of pertinent concern in the area of medical education often arise in such fields as legislation, under and postgraduate training programs, and licensure regulations, that should be routinely publicized as a function of the Committee.

I would like to take this opportunity to thank each of the members of the Committee for their service and cooperation and the devotion of their expertise and knowledge to the activities of the Committee.

Glenn W. Bryant, M.D., Chairman

Recommendations, Reference Committee No. 2

The reference committee reviewed the report of the Kentucky Foundation for Medical Care; only KFMC 4 dealing with the KFMC Continuing Medical Education Committee and KMA Medical Education Committee. The reference committee wishes to congratulate this joint committee for its efforts in making continuing medical education easier to obtain and for increasing the quality of the continuing education.

Mr. Speaker, I move the adoption of this section of the report.

(Motion was seconded and carried.)

Report of the KMA-KNA Joint Practice Committee

Paragraphs Relating to Continuing Education Only

A considerable discussion was held on continuing professional education and it is our firm belief that much can be done within both professions in the

way of joint continuing medical education meetings. We learned that KNA is now organizing continuing education committees all over the state whose primary function is to define available or needed educational resources. The Committees are developing criteria for continuing education programs and individuals participating in them receive recognition. There are some 950 nurses now participating.

It was generally agreed that the combined physician-nurse continuing education program concept is good and should be continued and the Committee went on record of supporting continuing interdisciplinary health education programs.

The concept of an internship for nursing was also discussed and there was some concern expressed over the clinical ability of today's nurse upon graduation. As a result, the Committee recommends a strengthening of clinical experience in associate degree programs by all Kentucky schools currently offering nurse training programs and that these schools be made aware of the committee's concern in this matter.

Recommendations, Reference Committee No. 2

The reference committee reviewed the report of the KMA-KNA Joint Practice Committee; the last paragraph on page 38.2 through the second paragraph on page 38.3 only, which deals with continuing education. The reference committee congratulates the Kentucky Nurses Association for its efforts in continuing medical education and encourages the members of KMA to actively participate and aid in these educational activities.

Mr. Speaker, I move the adoption of this section of the report.

(Motion was seconded and carried.)

Resolution A

KMA Medical Education Committee

WHEREAS, one of the sincere desires of the conscientious physician, for himself, his patients, and his colleagues, is to maintain the practice of medicine at a high level of performance based on current knowledge, and

WHEREAS, a national trend increasingly calls physicians to be publicly accountable for their efforts in continuing medical education, and

WHEREAS, a systematic program for organizing and stimulating physician participation in continuing education could accomplish acceptable exposure to or participation in continuing medical education by all physicians, and

WHEREAS, Public Law 92-603 established both a national and a Kentucky requirement for a PSRO, with a concurrent systematic educational mechanism for developing a response to PSRO identified educational needs of physicians, and

WHEREAS, a number of specialty organizations have either established or are in the process of establishing educational requirements viewed as minimally essential and proper to the continued practice of the physician in the respective specialty field, therefore be it

RESOLVED, that the KMA endorse and hereby

call upon its staff to administratively establish a system for insuring the systematic participation of all physicians in continuing education based on the following components:

- A. A continuing educational requirement in some detail, and by specialty, as described in the document: KMA Continuing Education Program for Physicians.
- B. A proviso that the plan as herein adopted by the KMA may be modified from time to time, specialty by specialty, as recommended by respective specialty societies and approved by the KMA Board of Trustees.
- C. A system for the collection of records and data, pertinent to establishing the compliance of physicians with those educational standards, which is open to all physicians licensed in Kentucky, whether KMA members or not.
- D. Every physician to be allotted a period of three years from July 1, 1975, to furnish evidence of his compliance with the continuing education requirements of his specialty as spelled out in A. above, and provided that continued compliance after the initial three years will be based on the same standards for subsequent three year periods—or less, as indicated in the KMA plan.

and be it further

RESOLVED, that the Kentucky Board of Medical Licensure be requested to require (by regulation) satisfactory participation in continuing education for re-registration of the license to practice medicine.

Recommendations, Reference Committee No. 2

The reference committee considered Resolution A in great detail. The reference committee would like to thank the KMA Medical Education Committee for the large amount of time and work that it has spent on the problem over the last several years. A prolonged and enlightening discussion was forthcoming from the floor. The pros and cons of this resolution were well ventilated. The reference committee wishes to make it clear that this resolution requires a satisfactory participation in continuing education for re-registration of the license to practice medicine and is not to be construed as endorsing an examination of any type for re-registration of license. The reference committee recommends adoption and implementation of Resolution A.

Mr. Speaker, I move the adoption and implementation of this section of the report.

(The motion was seconded and carried.)

Resolution K

Adair County Medical Society

WHEREAS, almost one-fifth of all physicians in the United States today are foreign medical graduates; and

WHEREAS, there has been a high increase in the number of foreign medical graduates in recent years in Kentucky, many of whom are highly qualified, competent physicians; but

WHEREAS, some foreign medical graduates lack

the education, competency, and language skills to deliver a high quality of medical care; and

WHEREAS, we must be concerned foremost with the assurance of the quality of health care delivered to our citizenry; therefore be it

RESOLVED, that the KMA urge the Kentucky State Board of Medical Licensure to amend Section M and 0-2-1 relating to foreign medical graduates in KRS Chapter 331 to state in Paragraph #3, "that the graduates of medical or osteopathic schools situated outside the United States or Canada shall have successfully completed at least three years training in the United States (in an AMA approved hospital program)", and be it further

RESOLVED, that the KSBML adopt a time limit/maximum number of times an applicant can take the state licensure exam after which the physician must complete further training before qualifying to retake the exam.

Recommendations, Reference Committee No. 2

Resolution K, introduced by the Adair County Medical Society, was considered by the reference committee, and in the discussion, the delegate from Adair County recommended this resolution be withdrawn. The Reference Committee is unable to allow the withdrawal of this resolution, but feels it should not be adopted.

Mr. Speaker, I move the adoption of this section of the report.

(Motion was seconded and carried.)

Resolution L

Adair County Medical Society

WHEREAS, there are many areas of Kentucky in need of physicians and health care services; and

WHEREAS, most of these underserved areas are outside the Jefferson County-Fayette County, medical school, metropolitan areas; and

WHEREAS, both Kentucky Medical Schools have an obligation to meet and supply the health care needs of the people of Kentucky; and

WHEREAS, recent statistics indicate that medical students from underserved areas (mostly rural) return as physicians to underserved areas in significantly greater percentages than do students from urban areas; and

WHEREAS, many underserved, rural communities are currently attempting to attract physicians; and

WHEREAS, it is a well known fact that there are qualified medical school applicants from underserved areas who are not always accepted to one of our two medical schools; and

WHEREAS, 90% of the nation's health manpower deficits are to be found in the areas of primary health care, while 90% or more of our medical schools' graduates continue to enter the two levels of advanced and intermediate specialty care; and

WHEREAS, the American Medical Association is on record urging that 50% of all physicians should be in the practice of primary care specialties (Family Practice, Internal Medicine, OB-GYN, and Pediatrics), therefore be it

RESOLVED, that 1) admissions incentives and priorities be given to qualified students from underserved, rural areas needing physicians and to students who relate a genuine desire to practice in rural, underserved areas; 2) that every medical student in Kentucky be given an exposure to the practice of medicine in an area needing physicians in a preceptorship sometime during the clinical years of his undergraduate medical education; 3) that the KMA work with the Kentucky General Assembly and with our two medical schools in implementing this policy; and that the KMA President report to the 1975 KMA convention, of efforts in this area; and be it further

RESOLVED, that the KMA commend the Rural Kentucky Medical Scholarship Fund and the Kentucky MECO Programs for their efforts to encourage and assist Kentucky's medical students to establish practices in underserved, rural areas of Kentucky.

Recommendations, Reference Committee No. 2

The reference committee reviewed Resolution L. The reference committee is in sympathy with the need to encourage physicians to practice in rural areas and other areas which are medically underserved. However, the reference committee felt that Resolution L would not significantly aid in the attainment of that objective. The reference committee also felt that parts of this resolution were discriminatory particularly in reference to the selection of applicants to medical schools. The reference committee recommends that Resolution L not be accepted.

Mr. Speaker, I move the adoption of this section of the report.

(Motion was seconded and carried.)

Resolution M

Adair County Medical Society

WHEREAS, the National Board of Medical Examiners (NBME) has received from its Committee on Goals and Priorities recommendations that:

1. Parts I and II and Portions of Part III of the present National Board examinations should be combined, forming a single examination (Qualifying A), to be given at the end of medical school, which would qualify a graduate for a "permit to practice in a supervised setting."

2. "... the NBME should develop examinations (Qualifying B) to be given at the completion of formal graduate education to evaluate performance ... (and) qualify a candidate for specialty board certification ... (and an) unrestricted license for independent practice"; and

WHEREAS, this would require a physician to complete training in a medical specialty before he could be allowed to independently practice medicine in any way; and

WHEREAS, many young physicians today wish to practice general medicine a time, particularly in physician deficient areas, prior to entering postgraduate training; and

WHEREAS, many physicians derive considerable

financial and educational benefit during their years of postgraduate training from practicing medicine outside of the supervised institutional setting (i.e. moonlighting); and

WHEREAS, implementation of these recommendations would further the transformation of medical education into an inflexible continuum unresponsive to the needs and desires of individual physicians-in-training; and

WHEREAS, centralization of specialty board examination to a single organization might increase the possibility of unwarranted third party influence; now therefore be it

RESOLVED, that the KMA expresses its disagreement and disapproval of the recommendations of the Committee on Goals and Priorities of the NBME regarding "Evaluation of the Undergraduate/Graduate Interface" and "Evaluation of the Graduate/Practice Interface" as stated in their report, "Evaluation in the Continuum of Medical Education"; and be it further

RESOLVED, that the President of KMA inform the NBME and the dean of clinical affairs of our two medical schools, by letter, of the Association's disagreement and disapproval.

Recommendations, Reference Committee No. 2

The reference committee reviewed Resolution M. In view of the fact that the Committee on Goals and Priorities of the National Board of Medical Examiners is still considering this problem, the reference committee recommends that Resolution M be accepted for informational purposes only.

Mr. Speaker, I move the adoption of this section of the report.

(Motion was seconded and carried.)

Resolution N

Adair County Medical Society

WHEREAS, there are presently two different routes to becoming licensed to practice medicine in Kentucky, namely,

1. The National Board Route
2. The State Board (FLEX) Route; and

WHEREAS, the National Board Route, consisting of three parts, is given sequentially as the student completes progressive phases of education. The FLEX Route is given only once during, or at the completing of the first year of postgraduate medical training; and

WHEREAS, all medical students at the University of Kentucky School of Medicine are required to successfully complete Part I of the National Boards in order to enter their third year of medical school; and, the vast majority of University of Louisville medical students elect to pursue this same route; and

WHEREAS, the total cost of becoming licensed to practice medicine in Kentucky is \$225 (\$100 testing fee plus \$125 endorsement fee), by the National Board Route, as opposed to \$125 by the State Board (FLEX) Route, therefore be it

RESOLVED, that 1) the KMA commend the KSBML for its recent willingness to consider reducing its endorsement fee for accepting National Board scores for medical licensure of physicians, 2) that the

KMA express to the KSBML its endorsement of a reduction of the cost of becoming licensed to practice medicine via the National Board Route; and be it further

RESOLVED, that the President of the KMA inform the KSBML of this statement of policy, that the KMA work toward reducing this inequitable fee, and that the President report back to the 1975 KMA convention concerning action taken on this resolution.

Recommendations, Reference Committee No. 2

The reference committee reviewed Resolution N. In view of the incompleteness and ambiguities of the resolution, the reference committee recommends a substitute resolution, to wit:

WHEREAS, there are presently three different routes to becoming licensed to practice medicine in Kentucky (1) the national board route, (2) the state board (FLEX) route, (3) through reciprocity with another state, and

WHEREAS, the national board route, consisting of three parts, is given sequentially as the student completes progressive phases of education, the FLEX route is given only once during or at the completion of the first year of postgraduate medical education training; and

WHEREAS, all medical students at the University of Kentucky are required to successfully complete Part One of the national board in order to enter their third year of medical school and the vast majority of the University of Louisville medical students elected to pursue this same route; and

WHEREAS, the total cost of becoming licensed to practice medicine in Kentucky is \$225 (\$100 testing fee plus \$125 endorsement fee) by the national board route as opposed to \$125 by the state board (FLEX) route; therefore be it

RESOLVED, that (1) the KMA commend the KSBML for its recent willingness to consider reducing its endorsement fee for accepting national board scores for medical licensure of physicians, and (2) that the KMA express to KSBML its endorsement of reduction of the cost of becoming licensed to practice medicine via the national board route; and be it further

RESOLVED, that the President of the KMA inform the KSBML of this position and that the KMA work toward removing these inequities in medical licensure fees, particularly as these inequities apply to Kentucky born or Kentucky trained physicians.

Mr. Speaker, I move the adoption and implementation of this section of the report.

(Motion was seconded and carried.)

Resolution T

Pennyrile Medical Society, Inc.

WHEREAS, many state medical societies and institutions of higher medical education are being approved by the American Medical Association to award Continuing Medical Education credits in Category I, and

WHEREAS, the recommendation has been made in

the past that the Kentucky Medical Association become such an accredited agent, now therefore be it

RESOLVED, the 1974 House of Delegates request the Board of Trustees and executive personnel of the Kentucky Medical Association to implement the necessary applications to become an accrediting agency of Continuing Medical Education credits and courses as outlined by the American Medical Association.

Recommendations, Reference Committee No. 2

The reference committee considered Resolution T, and it was brought to the attention of the reference committee that the applications have already been submitted for the KMA to become an accrediting agency of continuing medical education as outlined by the American Medical Association. In view of the fact that this resolution has already been implemented, the reference committee recommends that this resolution be accepted for informational purposes only.

Mr. Speaker, I move the adoption of this section of the report.

(Motion was seconded and carried.)

Mr. Speaker, I move the adoption of the Report of Reference Committee No. 2 as a whole, with the exception of that portion of the report dealing with the Report of the Cancer Committee.

(Motion was seconded and carried.)

Mr. Speaker, I would like to thank the members of this reference committee for their help in consideration of the matters brought before this committee and Mrs. Smith for her help in preparing the report.

REFERENCE COMMITTEE NO. 2

Richard F. Hench, M.D., Lexington, Chairman
Henry R. Bell, M.D., Elkton
Arthur H. Keeney, M.D., Louisville
Nelson B. Rue, M.D., Bowling Green
Don R. Stephens, M.D., Cynthiana

REFERENCE COMMITTEE NO. 3

Raymond D. Wells, M.D., Inez, Chairman

Reference Committee No. 3 considered the following reports and resolutions:

21. Report of the Committee on Occupational Health

22. Report of the Maternal Mortality Study Committee

27. Report of the Committee on Legislative Activities

29. Report of the Committee on Environmental Quality

30. Report of the KMA Liaison on Cults to the AMA

1. Report of the President; the following topics only

Topic VI (National Health Insurance)—pages 1.6 and 1.7

Topic X (Legislative Activities)—pages 1.10 and 1.11

Topic XII (KEMPAC)—page 1.12 only

37. Report of the Interspecialty Council; the last two paragraphs of this report on page 37.2 *only* Resolution 0 — Preservation of the System of Private Medical Practice (Fayette County Medical Society)

Resolution U — A Non-discovery Statute in Kentucky (Jefferson County Medical Society)

Report of the Committee on Occupational Health

The Committee on Occupational Health met only once during the Associational year of 1973-74. The Committee has conducted a survey of all physicians throughout the state to determine if they would be interested in a one-day seminar sponsored by KMA to discuss problems of occupational medicine. We are hopeful that in the late Fall of 1974, or early in 1975, such a seminar may be presented and additional work can be done to possibly bring about more activity of the Association in this very important part of medicine.

As most of you may know, the obvious reason for the Committee's lack of activity in the latter part of the Associational year was due to the untimely death of our Chairman, Charles E. Hornaday, M.D., of Owensboro. It is the wish of the Committee that the following resolution be adopted as part of our final report for this Associational year. The resolution is as follows:

WHEREAS, Charles E. Hornaday, M.D., Owensboro, was taken from this life on December 14, 1973, and

WHEREAS, Doctor Hornaday had served his profession, his community, and his Association with a high degree of determination, diligence, and dedication; now, therefore, be it

RESOLVED, that the House of Delegates of the Kentucky Medical Association on September 25, 1974, does hereby recognize the outstanding efforts, the hard work, and the continuing dedication to the highest ideals of the profession which were constantly exhibited by Doctor Hornaday, and be it further

RESOLVED, that the House of Delegates in its deliberations does include this resolution as a formal portion of the final report of the Committee on Occupational Health so that those who may look upon the records of this Association in years to come will know of our desire to honor the memory of this fine fellow physician.

John E. Trevey, M.D., Chairman

Recommendations, Reference Committee No. 2

The Report of the Committee on Occupational Health was reviewed by the committee. Mr. Speaker, I move the adoption of this section of the report.

(Motion was seconded and carried.)

Report of the Maternal Mortality Study Committee

The Kentucky Medical Association Maternal Mortality Study Committee has met twice during the last Associational year. On September 19, 1973, 18 cases

involving death associated with pregnancy were reviewed. On June 1, 1974, in conjunction with the Annual Meeting of the Kentucky Obstetrical and Gynecological Society, three maternal deaths were reviewed before the group as well as the Committee. The Committee attendance has been good with enthusiasm expressed by its members for the work they are doing.

Cases were discussed in great detail. The meeting in September lasted approximately three hours. The three cases discussed at the June 1st meeting were deliberated for over an hour and much thought given to their care and management. Maternal mortality patients that were good examples for teaching were then selected by the Committee Chairman and one published each month in the Journal of the Kentucky Medical Association with editorial comments intended for instructional purposes. This was done every month during the year except for the July 1974 issue which because of space limitations, a Maternal Mortality report was not included. However, it is intended they will be included in future issues.

At the 1973 September meeting, considerable concern was expressed that our Committee does not have the power to influence the practice of Obstetrics in the Commonwealth of Kentucky, particularly when we review preventable deaths. Therefore, the Chairman of the Committee circulated to the members of the active Committee a letter asking for their thoughts as to how the work of the Committee could be strengthened and appropriate actions taken. Doctor John Queenan of Louisville, Chairman of the Department of Obstetrics and Gynecology, University of Louisville summarized suggestions from the responses that were received. A summary of the operation for the Committee as well as suggestions to strengthen it is as follows:

1. The current method of operation of the Committee is as follows: Doctor John Petry of Louisville examines the death certificates of women between the ages of 15 and 45 years of age. If pregnancy is not listed on the death certificate, he does investigate in such cases whether the woman could have possibly been pregnant. This is why there is a difference in our maternal mortality rates compared with those listed in the vital statistics of the Commonwealth. Doctor Petry, after obtaining permission of the attending physician, contacts the hospital record room and asks for a copy of the pertinent material. This is sent to the Division of Maternal and Child Health, of the Kentucky State Department of Health. This assures the physician and hospital of the legitimacy of the phone request.

An abstract of the information given is then sent to the physician asking if he would add any additional information or correct any inconsistencies. He is told to contact Doctor Petry within two weeks, otherwise the report will be considered complete and correct. The attending physician is invited by letter to attend the maternal mortality meeting when his case will be anonymously discussed. After the Committee meets the physician is then sent a letter giving the Committee's comments and deliberations.

It is felt by the Committee that it would be of great help if the physician were made to be present when his case is discussed. This is done in many other areas of the United States and we ask that the Kentucky Medical Association help implement such a procedure. It is recommended by the Committee that physicians be invited more forcefully to sit with the Committee to provide more impact for its work, or that legislation be enacted to achieve this end.

John W. Greene, Jr., M.D., Chairman

Recommendations, Reference Committee No. 3

The Report of the Maternal Mortality Study Committee was reviewed and discussed by this committee. Doctor Petry, who is a member of the committee, was in attendance and upon his recommendation we feel that the last paragraph of this report be amended to read as follows:

"It is felt by the committee that it would be of great help if the attending physician were to be present when his case is discussed. This is done in many other areas of the United States and we ask that the Kentucky Medical Association help implement such a procedure. It is recommended by the committee that physicians be strongly encouraged to sit with the committee to provide more impact for its work."

Mr. Speaker, I move the adoption and implementation of this section of the report.

(Motion was seconded and carried.)

Report of the Committee on Legislative Activities

State Affairs

The KMA Committee on Legislative Activities, the members of the Quick Action Committee, and a representative of the Woman's Auxiliary to KMA met every two weeks during the session of the Kentucky General Assembly. Most of the meetings were held in Frankfort.

Immediately after the May, 1973, election physician Key Men were appointed for State Senators and Representatives who would be unopposed in the November election. This permitted an earlier rapport between the physician Key Man and his Legislator. The balance of the physician Key Men were appointed after the November election.

Over 1400 bills and resolutions were introduced in this session of the Kentucky General Assembly. All proposals were carefully screened by KMA staff for a determination of health and medically-related bills. Referrals were then made to KMA's legal counsel, the Chairman for State Affairs of the KMA Committee on Legislative Activities, members of the Legislative Committee and the Quick Action Committee. Some 80 bills were of interest.

Throughout the session of the General Assembly we tried to keep our membership informed on the status of all major health and medical proposals through a weekly "Legislative Committee Bulletin" and a final legislative summary.

Included in the proposed budget presented by Governor Wendell Ford to the members of the Kentucky General Assembly on January 22, 1974, were funding proposals for the construction of a number of major health facilities, including:

1. \$31 million for replacement of the General Hospital in Louisville and other University of Louisville Health Science Center additions. The hospital would be a 380-bed teaching hospital to serve western Kentucky
2. \$1.83 million for the Kentucky School for the Blind for new and improved facilities.
3. \$1.493 million for improvements at Central State Hospital.
4. \$1.8 million for the training of ambulance attendants, setting up communications between hospitals and ambulances and for the purchase of emergency vehicles by local governments.
5. \$2 million for a research center for biology of aging at the University of Kentucky Medical Center.
6. \$4.6 million for a "multi-handicapped" facility at the State School of the Deaf at Danville.
7. \$29.5 million for a new office building for Human Resources near the Health Department Building in Frankfort
8. Approximately \$17 million for upgrading state hospitals for the mentally ill and retarded.

Prior to the passage of a compromise bill by the General Assembly, all Legislators were provided with copies of the Abortion Guidelines adopted by the KMA House of Delegates in September. A compromise "no-fault" auto insurance bill was also enacted, which provides for medical expense on the basis that "any medical bill submitted is reasonable."

Bills passed by the Legislature having KMA support included: the designation of anatomical gifts on a motor vehicle or motorcycle operator's license; certification of emergency medical technicians; hypodermic needle and syringe record of sale and product disposition; state-wide lead-based substance program; sickle cell legislation; a resolution directing the Legislative Research Commission to study the Kentucky Medical Assistance Program; and House and Senate resolutions memorializing Congress to repeal PSRO. A KMA-supported clinical associates bill did not receive legislative approval.

Some legislation opposed by KMA which did not pass included two bills that would have provided for payment of chiropractic services and fees under Kentucky's Workmen's Compensation laws; a hearing aid dealers bill; a proposal requiring anyone using ionizing radiation, who worked under the supervision of a physician, to obtain a radiologic technician's license; and a bill which would have required the submission to a referendum of voters the question of fluoridation of water supplies.

Continuing efforts are being made to strengthen our Key Man System, and we wish to re-emphasize the importance of the Key Man as related to our legislative success or failure. These positions are extremely important and should not be accepted by anyone unless he has both the time and the interest to fulfill his obligation.

I think it is apparent to everyone involved in any aspect of medicine that more and more is demanded of our time and talents because of the increasing role of government and legislative matters affecting the practice of medicine.

We express our appreciation to the members of the KMA Quick Action Committee, members of the KMA Committee on Legislative Activities, Legislative Key Men, and all KMA and KEMPAC members and staff who worked so diligently during the 1974 session of the Kentucky General Assembly.

William W. Hall, M.D., Chairman for State Affairs

National Affairs

The KMA Committee on Legislative Activities met six times during this Associational year. At these meetings, the Committee members were appraised on the status of national health legislation, and action was taken when indicated.

We have corresponded with our seven U. S. Representatives and two U. S. Senators on many important issues, including the following:

- 1. Modifications to the Keogh Plan increasing allowable contributions.
- 2. Opposition to the proposed pre-admission certification regulations for Medicare-Medicaid hospital patients.
- 3. Discontinuance of discriminatory Phase IV Economic Controls on physicians.
- 4. Urging specific provisions for physicians should gasoline rationing be put into effect.
- 5. Support of the now-enacted Emergency Medical Service System Development Act.
- 6. Resolutions on PSRO passed by our 1973 House of Delegates and resolutions requesting repeal of PSRO passed by the Kentucky General Assembly.

Our Congressional Delegation has also been requested to support the 19 amendments proposed by

AMA to the present PSRO law. We have received excellent support and cooperation from our Senators and Representatives.

The 17th Annual KMA-sponsored Washington Congressional Trip was made on May 13 and 14, 1974. This year the annual social dinner was held at The Embassy Row Hotel and was attended by 42, which included physicians and their wives, Congressmen and their Administrative Assistants. A briefing session was held on May 13, and staff from the AMA Washington office gave an excellent presentation on current and developing national legislation. This was followed by a presentation on PSRO by John Farrell, M.D., Assistant to the Director of the Office of Professional Standards Review, and by a question and answer period. Visits were made to all members of the Kentucky Congressional Delegation on Tuesday, May 14.

This spring and summer the House Ways and Means Committee and the Senate Finance Committee held hearings on national health legislative proposals. Officers of the American Medical Association have testified before both committees. It has been emphasized that AMA's Medigap has a greater number of sponsors than any other proposal. Of the 182 sponsors, five are members of the Senate Finance Committee, and 11 are members of the House Ways and Means Committee.

For a status report on selected medical legislation, see Supplement A to this report. A "Status of National Health Insurance Legislation" follows this report as Supplement B.

The Chairman expresses appreciation for the opportunity to have served and wishes to express grateful appreciation to all the members of the Committee who have served diligently.

Hoyt D. Gardner, M.D., Chairman for National Affairs

Supplement A

STATUS OF SELECTED MEDICAL LEGISLATION

July 26, 1974

BILL NUMBER	DESCRIPTION	STATUS
H.R. 2 Dent	<i>Employee Benefit Security Act of 1974:</i> Provides for regulation of private pension funds and increases allowable Keogh plan deductions.	In Conference
H.R. 3153 Mills	<i>Social Security Amendments of 1974:</i> Includes certain outpatient drugs under Medicare and other Medicare and Medicaid amendments.	Senate Conferees appointed 1/30/73
H.R. 5463 Hungate	To establish a code of evidence for actions in federal courts (present status of physician-patient privilege unchanged).	House Passed 2/6/74
H.R. 7724 Rogers	<i>The National Biomedical Research Fellowship, Traineeship, and Training Act of 1973:</i> Establishes a program of health research fellowships through NIH. (Senate bill added provision for control of human experimentation).	House Passed 5/31/73; Senate Passed 9/1/73; Senate & House agreed on Conference Report
H.R. 9341 Rogers	<i>Public and Allied Health Personnel Act of 1973:</i> Revises existing programs of federal aid for allied health and public training.	Hearings before Subcommittee on Public Health and Environment
H.R. 9440 Waldie	Provides coverage to FEHB beneficiaries for psychologists and optometrists' services without prior referral.	House Passed 3/5/74

H.R. 9984 Rogers	<i>Medical Devices Amendments of 1973</i> : Establishes a program for the classification, evaluation and testing of medical devices.	Hearings before the House Subcommittee on Public Health and Environment.
H.R. 10957 Rogers	<i>Public Health Service Act Amendments of 1973</i> : Recodifies the Public Health Service Act.	House Passed 1/21/74
H.R. 11385 Rogers	<i>Health Services Research, Health Statistics and Medical Libraries Act of 1973</i> : Revises programs of health services research and extends library assistance.	President signed into law 7/24/74
H.R. 11511 (S. 3280) Rogers	To extend for two years PHS authorities including community mental health centers, family planning, developmental disability, migrant health, and neighborhood health centers.	House and Senate hearings completed. House Bill reported
H.R. 12053 Rogers	To amend the Public Health Service Act to provide for the development of a national health policy and to augment state health regulatory programs and area health planning programs.	House and Senate hearings completed.
H. R. 14930 Staggers	<i>Comprehensive Health Manpower Act of 1974</i> : Modifies loan guarantee programs and system of federal aid to medical schools.	Hearings scheduled Subcommittee on Public Health and Environment
S. 966 Nelson	<i>Omnibus Drug Amendments</i> : Calls for federal formulary, federal control of drug research and distribution.	Hearings before Senate Health Subcommittee
S. 2008 Williams	<i>National Workers' Compensation Standards Act of 1973</i> : Establishes standards for state workmen's compensation programs.	Referred to Committee on Labor and Public Welfare
S. 2893 Kennedy	<i>National Cancer Act Amendments of 1974</i> : Extends the National Cancer Act for three years and increases the authority of the director of the National Cancer Institute.	President signed into law 7/24/74
S. 2511 Dole	Calls for the establishment of an Office of Rural Health within the Department of Health, Education and Welfare, and to assist in the development and demonstration of Rural Health Care Delivery Models and Components.	Referred to Committee on Labor and Public Welfare
S. 3203 Williams	Includes nonprofit hospitals under the National Labor Relations Act.	Senate Passed 5/7/74 House Passed 5/30/74 Conference agreement
S. 3181 Kennedy	<i>National Health Service Corps Amendments of 1974</i> : Extends and modifies NHSC program.	Hearings before Health Subcommittee
S. 3441 Kennedy	<i>Drug Utilization Improvement Act</i> : Limits drug sample distribution, establishes drug formulary and provides aid for teaching of clinical pharmacology.	Hearings scheduled
S. 3577 Kennedy	<i>Health Facilities Assistance Act of 1974</i> : Replaces Hill-Burton authority with program of grants and loans to qualified health facilities.	Hearings before Subcommittee on Health
S. 3585 Kennedy	<i>Health Professions Educational Assistance Act of 1974</i> : Extends and modifies medical manpower training programs; establishes national licensure and regulates residencies.	Hearings held before Committee on Labor and Public Welfare
S. 3586 Kennedy	<i>Nurse Training Act of 1974</i> : Extends existing authority for aid to nurse training programs.	Hearings held before Committee on Labor and Public Welfare

Supplement B

STATUS OF NATIONAL HEALTH INSURANCE LEGISLATION

July 26, 1974

Several major National Health Insurance proposals have been introduced in the 93rd Congress. The House Ways and Means Committee has completed its hearings on National Health Insurance. The Committee is now expected to go into Executive Session to prepare its own NHI bill. The Senate Finance Committee, after conducting several days of hearings, has postponed further hearings on National Health Insurance.

BILL NUMBER	DESCRIPTION
H.R. 1 Ullman	<i>National Health Care Services Reorganization and Financing Act</i> : Provides for establishment of new program of health care delivery through locally organized health care corporations; establishes program of health insurance coverage, with employers paying 75% of health insurance premiums; HEW would provide coverage for aged and indigent.
H.R. 22 S. 3 Griffiths/ Kennedy	<i>Health Security Act</i> : Provides for comprehensive health benefits for all U.S. citizens financed through an employer-employee payroll tax and from general revenue.
H.R. 33 Dingell	<i>The National Health Insurance Act</i> : Provides for a system of national health insurance financed through a payroll tax, and, for those not employed, through state and federal general revenues. The plan calls for comprehensive benefits and covers nearly all residents of the United States.
H.R. 2222 S. 444 Fulton/ Broyhill/ Hartke/ Hansen	<i>Health Care Insurance Act of 1973 (Medicredit)</i> : Provides comprehensive basic and catastrophic health insurance coverage financed through tax credit (or vouchers) with full federal payments for the poor and for other assistance related to income.
S. 587 Beall	<i>National Catastrophic Illness Protection Act of 1973</i> : Authorizes national catastrophic illness insurance program administered by federal government through the states and existing insurance carriers.
S. 915 Javits	<i>National Health Insurance and Health Service Improvement Act</i> : Expands Part A and B Medicare benefits as a minimum standard for everyone.
S. 1100 H.R. 5200 McIntyre/ Burleone	<i>National Health Care Act of 1973</i> : Establishes a system of national health insurance implemented through existing health insurance systems. Benefits would be phased-in over a 10-year period, and a system of insurance pools would be used to provide benefits to the poor, near poor, and previously uninsurable.
S. 1416 Long	<i>Catastrophic Health Insurance Plan</i> : Provides coverage after first 60 days of hospitalization or after first \$2,000 of medical expenses. Financed by .3 of 1% payroll tax on employers and employees. Program would be administered under Social Security.
S. 2513 Long/ Ribicoff H.R. 14079 Waggoner	<i>Catastrophic Health Insurance and Medical Assistance Act of 1973</i> : Provides coverage for costs of catastrophic illness, federalized Medicaid and establishes federal standards for private health insurance carriers.
H.R. 11345 Staggers	<i>National Comprehensive Health Benefits Act of 1973</i> : Establishes mandated health care benefits to be phased-in over a six-year period. Federal revenues would finance coverage for the aged, poor, unemployed, and near poor. HMO's would be assisted through a 10% subsidy on enrollment fees.
S. 2756 Scott-Percy	<i>Health Rights Act of 1973</i> : Replaces Medicare and Medicaid; provides for "major illness protection plan" and a "health maintenance insurance plan."
S. 2796 Pell-Mondale	<i>Health Benefits and Health Services Distribution and Education Act of 1973</i> : Mandates employer-employee health insurance and creates community health and education centers.

- H.R. 12684 *The Comprehensive Health Insurance Program of 1974 (CHIP):* Establishes mandated health insurance coverage for the employed with the employer paying 75% of the insurance premium (after a three-year start-up period); replaces Medicaid program with a system of federal aid to low income groups and the uninsurable; modifies the Medicare program to conform with the benefit structure established for mandated insurance coverage.
- Mills
(by request)
- S. 2970
Packwood
- H.R. 13870 *Comprehensive National Insurance Act for 1974:* This bill seeks to establish a new health care program with broad health care benefits for persons under 65 years of age, and to expand Medicare for the aged and the disabled to include long-term care. The proposal would create a Social Security Administration, independent of DHEW to administer the program. Financing would be derived essentially from a payroll tax and the insurance would be compulsory. Medicaid programs would be folded and become a part of the plan.
- Mills
S. 3286
Kennedy

Recommendations, Reference Committee No. 3

The Report of the Committee on Legislative Activities was reviewed. This committee would like to commend the Committee on Legislative Activities for its excellent performance and extend our thanks for its voluminous work load.

Mr. Speaker, I move the adoption of this section of the report.

(Motion was seconded and carried.)

Report of the President

Topic VI Dealing with National Health Insurance Only

It seems almost an accepted fact that within the immediate future, this country will have a national health insurance proposal of some kind. I have expressed throughout the year concerns that organized medicine may have not adequately conveyed to the public our true feelings on National Health Insurance. I am of the personal opinion that there is no justification whatsoever for any national health insurance proposal which would cover individuals from the cradle to grave. I am afraid that organized medicine has not adequately expressed this view to the voting public. As a matter of fact, I am afraid that we have given to the people of this country the impression that we are, in fact, in favor of a sweeping national health insurance proposal to cover all people simply because we have drafted and submitted our own legislative proposal. I do not place blame for this on any one and must assume my share of the responsibility since, as I recall, I voted or perhaps even made the motion to endorse the AMA Mediredit proposal. I am not suggesting that we not support this proposal, but I am expressing concern that we have not emphasized enough to the people of this state and country our feelings that various national health insurance proposals are not in their best interests. I am not aware of a single, federally financed program which has decreased the cost of medical care. On the contrary, every single federally financed program with which I am familiar has in fact *increased* the cost of medical care, and National Health Insurance is certainly to do likewise. It would seem to me then, that if our primary concern is the cost of medical care (and everyone seems to say that it is), that it does not follow logic then to pass another federal health program which, prior to passage, is well known to increase the cost of medical care, not decrease it. I personally feel that government does have a role to play in medicine

—mainly to provide care for those people who are financially unable to provide care for themselves and to provide some type of coverage to all people for catastrophic illnesses so that no family, regardless of financial condition, is bankrupted because of a catastrophic illness. If the federal government is indeed concerned about the cost of medical care, it seems that the latter approach is far more logical than an approach covering all people which would in itself increase the cost of medical care.

Recommendations, Reference Committee No. 3

The Report of the President, Topic VI (National Health Insurance) was reviewed by the committee.

Mr. Speaker, I move the adoption of this section of the report.

(Motion was seconded and carried.)

Report of the President

Topic X Dealing With Legislative Activities Only

As you know since our last Annual Meeting another session of the Kentucky General Assembly has come and gone. I personally feel that we were most successful with our legislative program and this is due in large part to an active and dedicated staff. The abortion bill passed by the general assembly is somewhat confusing in that it states abortion may be performed during the first trimester of pregnancy by a woman upon herself upon the advice of a licensed physician. The Attorney General is being requested to render an opinion relative to this section of the law. If that opinion is available by the time we convene in September it will be made available as a supplement to this report. Almost constant contact has been maintained this year with our congressional delegation in Washington by way of letter and/or telephone relative to a wide variety of concerns to our profession. I have personally made five visits to Washington this past year during which time Kentucky Senators and Congressmen were contacted relative to PSRO, wage and price controls, retirement plans, National Health Insurance, pre-admission certification, and other matters of particular concern to our profession. I am pleased to report that Kentucky's congressional delegation has been most cooperative and helpful to us.

I cannot urge too strongly active participation and interest on the part of our members in legislative affairs and close liaison with representatives and senators in their respective areas. As you know, the Committee on Legislative Activities is chaired by a Chair-

man for State Affairs and a Chairman for National Affairs, but utilizes the same committee. Doctor Hoyt Gardner has served as Chairman for National Affairs for a great number of years and has done an excellent job. However, I would be less than candid if I did not say that for all practical purposes he has served as a one-man committee for National Affairs since I and other members who have served on the Legislative Activities Committee have perhaps devoted more time to state affairs than we have to national affairs. I personally feel that the time has come when the legislative involvement is so great at the state and national level that we should have two full separate committees, one for state affairs and one for national affairs. Although AMA does an outstanding job in my opinion on national legislation, I have concluded that there are so many considerations in Washington which affect all of us so drastically, and people of this country so drastically, that it certainly deserves the attention of a full committee devoted to the study and understanding of various national proposals.

Recommendations, Reference Committee No. 3

The committee has reviewed and discussed the Report of the President, Topic X (Legislative Activities) and would emphasize that Doctor Rainey has called for two full separate committees, one for state affairs and one for national affairs.

Mr. Speaker, we recommend the adoption and implementation of this section of the report.

(Motion was seconded and carried.)

Report of the Committee on Environmental Quality

The Committee on Environmental Quality met once during the Association year of 1973-1974. However, because of the State Legislature being in session, the Committee spent a great deal of time reviewing proposed legislation and making recommendations and comments to the various groups that were involved in the legislative process.

The activities of this Committee have been restricted for the past two years by virtue of the fact that a great many problems involving the environment are more localized than are many of the problems facing the profession today. For this reason, the Committee feels very strongly that county medical societies, particularly in areas beset by environmental problems, should become much more active in their work as far as these problems are concerned. For the state-level Committee to function effectively, there will have to be a greater input of information from the county-level throughout Kentucky.

Even though it may seem that this Committee has not been particularly active, I want to take this opportunity to thank the members of the Committee who have been faithful in their attendance and who continue to make individual contributions in the field of environmental quality.

John E. Trevey, M.D., Chairman

Recommendations, Reference Committee No. 3

The Report of the Committee on Environmental Quality was reviewed and discussed. Doctor Trevey,

Chairman of the committee, was present. The committee would like to emphasize one portion from the report in that it agrees that county medical societies particularly in areas beset by resource problems should become much more active in the work as far as these problems are concerned. We further encourage close working relationships between the committee and the Commissioner of Natural Resources.

Mr. Speaker, I move the adoption and implementation of this section of the report.

(Motion was seconded and carried.)

Report of the KMA Liaison on Cults to the AMA

During the 1973-74 Associational year, the Liaison Committee on Cults did not hold a formal meeting. However, with the assistance of the AMA Committee on Quackery and the KMA Legislative Committee, we have continued to attempt to stay as informed as possible on the many activities of this broad and ever-changing field of endeavor.

The chiropractors in Kentucky once more made a concerted effort to change additional laws which the Committee felt would be detrimental to sound health care programs, particularly in the field of Workmen's Compensation. We are pleased to report that they were once more unsuccessful in their legislative efforts, but we would hasten to caution every member of the Association that we must be constantly mindful of the continuing activities of all groups such as this. Your Committee would like to recommend that physicians throughout the state contact us whenever they have information on any cults in Kentucky about which they feel the KMA membership should be informed.

Richard F. Park, M.D.

Melvin Shein, M.D.

Recommendations, Reference Committee No. 3

The Report of the KMA Liaison on Cults to the AMA was discussed and reviewed by the committee. It is our recommendation that the Committee on Cults be expanded in membership and in scope to include not only legislation, but also education and public complaints.

Mr. Speaker, I move the adoption and implementation of this section of the report.

(Motion was seconded and carried.)

Report of the President

(Topic XII Dealing with KEMPAC Only)

At each Annual Meeting, as long as I can recall, this House has endorsed and encouraged membership in KEMPAC. I am extremely pleased with the active participation of the physicians whom we have in KEMPAC but I must say that the total percentage of physicians in Kentucky who have joined KEMPAC is, in my opinion, not adequate. I am afraid that individual members take too much for granted in the political process of present day times and feel that an attitude of "let Joe do it" will accomplish our ob-

jectives. I hope that somehow the delegates to this House can go back to their county societies and emphasize the importance of all physicians belonging to KEMPAC. It is certainly understandable that there may be times when KEMPAC would support a candidate that an individual physician might not desire to support, but we must place confidence in those people who are placed on the KEMPAC Board of Directors to make the best decisions possible for organized medicine and for good government. It certainly seems logical to me that all physicians should belong to KEMPAC to present a unified and strong political effort and, at the same time, work on an individual or personal basis for whichever candidate they may wish to support.

Recommendations, Reference Committee No. 3

The Report of the President, Topic XII (KEMPAC), was reviewed by the committee.

Mr. Speaker, I move the adoption of this section of the report.

(Motion was seconded and carried.)

Report of the Interspecialty Council

Last Two Paragraphs Only

The council was also asked to develop norms of patient care for the Kentucky Foundation for Medical Care. Last year a number of specialty groups undertook development of norms for care and we are very pleased to report that approximately 12 specialty societies are actively working on norms for care and are updating existing norms when indicated. It is noted that these norms for care will be necessary to use as a basis for hospital admissions in implementing the provisions of the Professional Standards Review Organization Legislation. Those specialty societies who have developed such norms are to be commended for their foresight and leadership.

One of the primary reasons for setting up the Interspecialty Council four years ago was to provide specialty societies with administrative assistance through the KMA Headquarters Office. We are pleased to report that nine specialty societies have taken advantage of these services to some extent. The officers of KMA feel this assistance is of considerable value to specialty societies and hope that more groups will take advantage of the service in the future.

James B. Holloway, Jr., M.D., Chairman

Recommendations, Reference Committee No. 3

The last two paragraphs of the Report of the Interspecialty Council were discussed and reviewed by the committee.

Mr. Speaker, I move the adoption of this section of the report.

(Motion was seconded and carried.)

Resolution O

Fayette County Medical Society

WHEREAS, the private practice system of medical care in the United States has provided our citizens the

most efficient, economic and effective means of health care delivery (as noted by the Kentucky Foundation for Medical Care in May 1973), and

WHEREAS, 1) Americans are living longer than ever before, 2) most of the diseases that used to kill and cripple earlier in this century have been reduced sharply in virulence, and 3) infant and maternal mortality have continued their rapid decline as proof of the above, and

WHEREAS, federal government intrusion into the practice of medicine by forcing unproven, poorly tested and more expensive systems of alternative medical care and by attempting to dictate unreasonable and wasteful bureaucratic regulations which interfere with the fundamental efficiency and economy of our present successful system of private medical care, and

WHEREAS, we recognize the need for government support for our citizens for catastrophic illnesses, medical research and medical education, therefore be it

RESOLVED, that the Kentucky Medical Association endorse the system of private practice of medicine which is consistent with the delivery of the highest quality of compassionate care at the lowest cost; and be it further

RESOLVED, that public policy should recognize that good medical care requires that physician judgment remain free from pressures from government and third parties, and be it further

RESOLVED, that the fundamental freedoms of the American private health care system are to be preserved; 1) freedom of choice of physician; 2) freedom of choice of hospital; 3) freedom of physicians to make the decisions inherent in the practice of medicine.

Recommendations, Reference Committee No. 3

Mr. Speaker, the committee reviewed and discussed Resolution O. It is our recommendation that the Resolution be amended to substitute "most reasonable" for "lowest" in the first line of page 2.

Mr. Speaker, I move the adoption and implementation of this section of the report.

(Motion was seconded and carried.)

Resolution O

Jefferson County Medical Society

WHEREAS, the Joint Commission on Hospital Accreditation and Federal Standards require hospitals to provide improved quality care review, and

WHEREAS, physicians and hospitals are faced with concern that the committee records or reports of quality review may be used by attorneys as part of their discovery procedure, and

WHEREAS, many states have enacted laws to protect this quality review procedure and declare them not subject to subpoena discovery or disclosure, and

WHEREAS, some states have declared quality review minutes and records to be confidential and/or privileged and therefore physician committee members may not be made to testify as to what transpired during committee deliberations, and

WHEREAS, the Kentucky Statute which provides immunity to the individual physician who serves on a review committee does not make the records of the committee confidential or privileged, and

WHEREAS, the Kentucky Medical Association and the Kentucky Hospital Association Legislative Committees both agreed that such a statute needs action by the State Legislature, and

WHEREAS, there was not enough time to properly prepare and communicate this matter to the Kentucky General Assembly at the last session but all agreed that the next two years should be used in preparing for this needed statute, and

WHEREAS, Report #27 from the Committee on Legislative Activities does not mention the discussion or planning about this important matter, therefore be it

RESOLVED, that this House of Delegates instruct the KMA Legislative Committee for State Affairs to begin at once to work with the Kentucky Hospital Association as well as members of allied groups and legislators to plan for the introduction and passage of a NON-DISCOVERY STATUTE OF QUALITY REVIEW MINUTES, RECORDS, TESTIMONY AND PROCEEDINGS at the next meeting of the Kentucky General Assembly.

Recommendations, Reference Committee No. 3

The committee is aware that the Kentucky Medical Association's Legislative Committee for State Affairs has already been working to introduce this legislation. It is the recommendation of this committee that the RESOLVED be amended to read "that the House of Delegates instruct the Kentucky Medical Association Legislative Committee for State Affairs to continue their work with the Kentucky Hospital Association as well as members of allied groups and legislators to plan for the introduction and passage of a NON-DISCOVERY STATUTE OF QUALITY REVIEW MINUTES, RECORDS, TESTIMONIES AND PROCEEDINGS at the next meeting of the Kentucky General Assembly."

Mr. Speaker, I move the adoption and implementation of this section of the report.

(Motion was seconded and carried.)

Mr. Speaker, I move the adoption of the report of Reference Committee No. 3 as a whole.

(Motion was seconded and carried.)

Mr. Speaker, I wish to thank the members of this committee, R. Kendall Brown, M.D., Terrell D. Mays, M.D., Earl P. Oliver, M.D., Marilyn M. Sanders, M.D., and Mrs. Hamm for preparing this report.

REFERENCE COMMITTEE NO. 3

Raymond D. Wells, M.D., Inez, Chairman
R. Kendall Brown, M.D., Georgetown
Terrell D. Mays, M.D., Elizabethtown
Earl P. Oliver, M.D., Scottsville
Marilyn M. Sanders, M.D., Owensboro

At this time, Doctor Greathouse asked Carl Cooper, M.D., Chairman of the KEMPAC Board of Directors, to present his annual report which follows:

(Following Doctor Cooper's presentation, a motion was made, seconded, and carried to accept the KEMPAC report.)

Mr. Speaker, fellow delegates and guests—

As Chairman of the Board of Directors of KEMPAC, I am most pleased to have this opportunity to report to you on KEMPAC activities this past year.

An increasing number of physicians are realizing that the future of medicine is closely tied to political activity, a lesson that we have been very slow to learn.

We want to remind you that, for the first time, we will have statewide billing. Please do not forget your KEMPAC dues and remember the more sustaining members we have the more political activity we are able to participate in effectively.

It is with great pride that I report to you a record breaking number of sustaining KEMPAC members and we are nearing our all-time record of two years ago in active memberships—a total of 1272 active members and 40 sustaining members.

Doctors' wives are being asked to volunteer one hour a week for six weeks to the candidate of their choice. The candidates have acknowledged that they welcome this support, and, of course, this is being coordinated with each candidate's campaign office.

I would like to give a special word of thanks to all KEMPAC Board members who work in behalf of organized medicine, sometimes with considerable discouragement.

We are most grateful to you, the House of Delegates of KMA, and to the KMA Board of Trustees for your support and understanding and I want to express my appreciation to the Woman's Auxiliary to KMA and to our staff.

In 1973, as in past years, the KMA House of Delegates reaffirmed its belief in the objectives of KEMPAC and AMPAC and recommended 100% participation by doctors and their spouses. It further recommended a vote of endorsement and encouragement of the KEMPAC organization to continue its worthwhile political efforts on the behalf of our free enterprise system and the freedom of the art and science of medicine.

I specifically request that you not only reaffirm this endorsement and include the billing of KEMPAC dues in the statewide billing for 1975 dues, but that you work individually on a personal level with your colleagues and collectively at the county level so that we can be an effective part in helping in the selection of candidates who will work for the free enterprise practice of medicine.

At this time, Doctor Greathouse stated the Special Presentations item on the agenda referred to the House acknowledging and expressing appreciation to those members of KMA who have served ten years on KMA Committees. He noted in the past, a special Resolution had been presented to them at this

time during the meeting. As the policy had since been changed and the Resolutions already presented, Doctor Greathouse announced that if any of those members were present, the House wished to express its appreciation to them for their service.

REFERENCE COMMITTEE NO. 4

*McHenry S. Brewer, M.D., Louisville,
Chairman*

Reference Committee No. 4 considered the following reports and resolutions:

12. Report of the Kentucky Foundation for Medical Care (KFMC 1) KFMC Board of Directors (KFMC 2)
KFMC Claims and Utilization Review Committee (KFMC 3)
KFMC Health Insurance Standards Committee (KFMC 5)
KFMC Health Manpower and Placement Services Committee (KFMC 6)
14. Report of the Board of Directors, Kentucky Physicians' Mutual, Inc.
19. Report of the Advisory Committee to Blue Cross and Blue Shield
28. Report of the Committee on Community and Rural Health
31. Report of the Committee on Health Care of the Poor
32. Report of the Committee on School Health, Physical Education and Medical Aspects of Sports
1. Report of the President; Topic VIII (PSRO-KPRO)—pages 1.8 and 1.9 *only*
Resolution B—Kentucky Foundation for Medical Care (KMA Board of Trustees)
Resolution D—Alternative Delivery Systems (KMA Board of Trustees)
Resolution F—Opposition to Public Law 92-603 (Campbell-Kenton County Medical Society)
Resolution G—Health Maintenance Organizations and Private Insurance Coverage (Campbell-Kenton County Medical Society)
Resolution H—PL 92-603: KMA and AMA Relationship (Campbell-Kenton County Medical Society)
Resolution J—PSRO (Warren County Medical Society)
Resolution Y—PSRO (KMA Board of Trustees)

Report of the Kentucky Foundation for Medical Care

Report of the President

This year has seen a good deal of activity and progress by the Foundation, and, as my term expires, it is with ambivalent feelings that I consider this year's end. I have had the honor and privilege of serving as a President of the Foundation for the past

two years and during that time have witnessed the birth and development of some noteworthy projects.

The peer review mechanism, which was begun in earnest, statewide, six years ago, has achieved a singular degree of operation. By regionalizing the review system in the form of county society and trustee district peer review committees, there has been established a review process which maintains local orientation and at the same time, impartiality, and is uniquely suited to Kentucky's demography and geography. The appeals procedure that is part of the system can readily serve as a model for any review mechanism and any success enjoyed by future peer review activities will be based in large part on these initial experiences.

Along related lines there is another project worthy of note and with which I have been quite pleased to see the Foundation associated. I assume that nearly everyone has become somewhat acquainted with the "Guidelines for Care" developed by panels of medical specialists under the auspices of the Foundation. Although the book that was published was a rudimentary effort, it seems that very few other organizations have undertaken or completed such a task. Moreover, the initial project as well as follow-up work now being accomplished by specialty societies was completed at a very nominal cost and the books were provided free of charge to every KMA member and every licensed hospital in the state. I understand that this will continue to be an ongoing project, and I think it speaks quite highly of the interest in peer review by Kentucky physicians.

Continuing medical education is a project that has also been heavily emphasized by the Foundation. I feel that we physicians, as individuals and collectively, have an obligation to medicine the science, our patient public, and our professional competence not only to participate in continuing education but also to insure that opportunities are available for such participation. It is interesting to note that over 20 other state medical associations have instituted some formal program for continuing education in addition to those programs offered by state and national medical specialty societies and the AMA. Regardless of any philosophical argument concerning mandatory aspects of continuing education, I see this area as one of great importance both now and in the coming years.

Obviously, a major portion of KFMC activities this year have been devoted to Professional Standards Review Organizations. The actions of the AMA House of Delegates in passing their resolution on PSRO and the creation by the combined KMA and KFMC Boards of the Kentucky Peer Review Organization will not be discussed here as they are dealt with in more detail elsewhere in these reports. However, the orientation intended by means of the AMA resolution and the formation of KPRO seem to be the only logical steps to take in view of all of the implications of economics, legal aspects, politics, social trends, and the future of medical practice. Although organized medicine does not have complete control over this legislation, neither can this legislation impose complete authority over the profession.

There is a recommendation before this House of Delegates concerning deactivation of the Foundation. The recommendation has been approved by both the KMA Board of Trustees and the KFMC Board of Directors, but I would like to interject a personal observation. The Foundation was established by the House primarily in anticipation of some requirement for automated, concurrent medical care appraisal, and to a lesser degree, as a vehicle for involvement in socio-economic matters of concern. The accomplishment of the goal of medical review preparation has been completed so the Foundation presently has no outstanding orientation. The rationale used by the originators of the Foundation was that it could virtually fit any purpose that might be determined. This would still be the case if it is deactivated, and by appointing a 1974-75 Board of Directors, the Foundation could be reactivated momentarily. Additional consideration for deactivation of the Foundation is the high cost in time and involvement necessary for its operation. In terms of the "return" on this investment and in the absence of peer review, we must objectively consider the feasibility of continued KFMC function. My personal recommendation parallels that of the combined Boards.

It would be virtually impossible to adequately express my gratitude both for myself and on behalf of the Board to all those who have toiled with such great dedication and effort in Foundation activities. However, realizing the inadequacy of such expressions, I hope all concerned will accept my sincere "thanks" for all their work.

David A. Hull, M.D., President

Recommendations, Reference Committee No. 4

The Report of the Kentucky Foundation for Medical Care (KFMC 1) was reviewed. The committee reviewed the report of the President and wished to commend him for his long and diligent work.

Mr. Speaker, I move the adoption of this section of the report.

(Motion was seconded and carried.)

Report of the Kentucky Foundation for Medical Care

Report of the Board of Directors

This year has seen the accomplishment of substantial efforts by the Foundation although the primary activities have not been widely varied. The Foundation Board formally met twice this year and met once jointly with the KMA Board. The Executive Committee of the Board of Directors met once.

Major efforts of the Foundation were in the area of PSRO. Peer Review has been a continuous and intense activity but has not required a great deal of attention by the Board this year, and other areas of endeavor are addressed in the various committee reports.

To provide a comprehensive understanding of the Board's activities, I would like to present their actions to you in chronological order of the meetings I have mentioned.

Meeting of the Board of Directors, October 18, 1973. The first meeting of the Board constituted the

reorganizational meeting as specified in the Bylaws. Officers were elected who were David A. Hull, M.D., Lexington, President; W. Neville Caudill, M.D., Louisville, Vice President; Robert G. Cox, Louisville, Secretary; and Paul J. Parks, M.D., Bowling Green, Treasurer. An Executive Committee was appointed consisting of the President, Vice President, Treasurer, and Lee C. Hess, M.D., Florence; and Edward N. Maxwell, M.D., Louisville. Committee chairmen and members were also appointed.

The main topic of the meeting consisted of discussions of PSRO. Specifically, the Board noted that the KFMC suggested PSRO implementation plan for Kentucky, which called for single statewide PSRO area designation, was the only plan submitted to the government and for this reason, Kentucky would probably be named as a single area. As constituted, the Foundation did not qualify as a PSRO-eligible organization because it was not open to all licensed doctors of medicine and osteopathy and after discussion, the Board agreed that legal counsel should research the possibility of creating a separate or subsidiary corporation which would satisfy the PSRO law with the provision that KMA/KFMC should have at least indirect control over its operations.

The Board also considered the possibility of including lay representatives on the KFMC Board with regard to PSRO operations but after noting that the Foundation had been established by the House of Delegates to specifically exclude non-physicians, it was agreed that a lay advisory council would be more advisable. As provided for in the Foundation Bylaws, such an advisory council could be appointed and lay representatives could act in a consulting fashion. Additional actions in this regard were held in abeyance pending study of the feasibility of establishing a separate PSRO corporation.

A potential role for the KMA Interspecialty Council in working on the Norms for Care project was suggested and it was agreed that the Council members should be approached with the idea.

In peer review matters, the Board adopted as policy that it would support all activities and findings of various KMA peer review committees to include appearance and testimony by KMA officials in legal proceedings with regard to peer review findings.

Meeting of KFMC Executive Committee, December 13, 1973. At the December meeting of the Executive Committee, the members received an update on current PSRO activities. It was announced that the Department of HEW would soon be issuing PSRO regulations or a program operations manual and hopefully, many of the questions that had surfaced with regard to such matters as the development of norms, utilization of lay personnel, etc., would thereby be answered.

Legal advice was received to the effect that the Foundation would not qualify as a PSRO-eligible organization, and it was suggested that a separate corporation should be created whose Board of Directors should range from 12 to 25 members, the majority of which would represent, for example, each of the KMA Trustee Districts.

At the request of the Claims and Utilization Review Committee, the Board had been asked to

stipulate a relationship between the peer review mechanism and the Board of Medical Licensure for peer review purposes because periodically, matters come to the attention of the review system which should probably be referred to the Licensure Board for consideration. The Board voted that when such matters arise, the CURC should refer them to the Foundation Board for further referral if necessary.

After some discussion, the Board agreed to make a definite request to the KMA Interspecialty Council that their individual members contact their respective specialty societies to determine if they would be willing to appoint ongoing norms panels and also to determine the views of the various societies on continuing medical education.

Because of the increasing volume and intricacies of PSRO research, it was voted to change the Bylaws so that the Board could be enlarged to a total of twenty members and the appointment of James B. Holloway, M.D., Lexington, was to be suggested to the KMA Board for such appointment.

Additional members were appointed to the Claims and Utilization Review Committee for the specialties of internal medicine, surgery, and physical therapy and rehabilitation, to further expand that Committee's capabilities.

Joint Meeting with the KMA Board, April 11, 1974. The KFMC Board met jointly with the KMA Board in April to consider the subject of forming a corporation to conduct PSRO activities. In an effort to comply with all requirements of the law while at the same time emphasizing professionally controlled review rather than review solely by federal mandate, the formation of a new corporation, the Kentucky Peer Review Organization, was suggested. KPRO would perform ongoing, concurrent review for any contracting party whether the government enters into an agreement for PSRO purposes or not. Information on this action had been mailed earlier to all Trustees and Board members and draft Articles of Incorporation were prepared and submitted. If approved, KPRO would be a free-standing organization open to all doctors of medicine and osteopathy, would have an Advisory Committee in addition to a Board of Directors, would have the authority to contract with any group desiring review, and would be incorporated and initially controlled by the KMA Board.

The government was in the process of letting PSRO planning grants, and in discussions, it was determined that a proposal for a grant should be submitted so there would be an opportunity to organize this corporation in a manner agreeable both with the KMA members and the Department of HEW. KPRO was then formally incorporated.

A motion was made that members of the KMA Board absent from the meeting be notified of these actions and polled to determine if they wished to join the KPRO Board.

Meeting of the Board of Directors, August 14, 1974. The meeting began with a presentation to Marvin A. Bowers, Jr., M.D., in commemoration of and commendation for his efforts in the field of peer review.

Final reports of the Foundation committees were submitted and accepted for information.

A recommendation was considered that called for certain committee changes and deactivation of the Foundation. This recommendation, which was received from the KMA Executive Committee, suggested that the Foundation was formed primarily to conduct peer review activities in anticipation of some federal medical care appraisal requirement and that that requirement had now been fulfilled with the establishment of KPRO. Because the Foundation would no longer have any PSRO responsibilities and to promote the efficiency of KMA operations, the following committee arrangements were suggested:

Claims and Utilization Review Committee—transfer back to KMA

Continuing Medical Education Committee—transfer back to KMA

Health Care Delivery Committee—reappoint only when needed

Health Insurance Standards Committee—reappoint only when needed

Health Manpower and Placement Services Committee—transfer back to KMA.

It was further recommended that the Foundation be placed in an inactive status but that the availability of the corporation should be maintained so that it could be reactivated momentarily when such a need might arise. This recommendation was approved along with a resolution to be submitted to the House of Delegates to this effect.

The subject of peer review expenses was discussed in line with administrative and other costs connected with review operations. In order that an objective consideration of this subject could be conducted, an Ad Hoc Committee was appointed to make a study of reasonable peer review expenses for purposes of budgeting and developing realistic expenditure categories.

The Board was advised that the KMA Interspecialty Council had made some progress in updating the Norms for Care and voted to refer this entire project to the Kentucky Peer Review Organization because of the application of diagnostic criteria to PSRO operations.

Although numerous other items were discussed and acted upon by the Board that do not appear in this report, it does provide, in summary form, the major subjects that were addressed. It has been my personal pleasure over the past three years to have served on this Board, and I would like to express my deep thanks to all of my fellow Directors for their help and support. Our meetings have invariably been long and tedious making the Board's efforts that much more difficult, in addition to the import of the matters considered. While all of the material discussed and acted upon by the Board may not have been pleasant nor popular, I can make assurances that each subject was treated objectively and head-on. The best interests of the profession and our patients always assumed a role of the highest priority in the Board's deliberations.

David A. Hull, M.D., President

The committee reviewed the Report of the Board of Directors of the Kentucky Foundation for Medical Care. We commend this Board for a job well done.

Mr. Speaker, I move the adoption of this section of the report.

(Motion was seconded and carried.)

Report of the Kentucky Foundation for Medical Care

Report of the Claims and Utilization Review Committee

A number of new procedures were instituted by the Claims and Utilization Review Committee this year in an effort to make the review mechanism more effective.

Because of the traditional reorganization of KMA and the Foundation in the fall, as well as county medical society organizations, the "official review year" was established to coincide with the calendar year. In addition, meetings of the state Committee were scheduled in advance so that it would meet once each quarter. This process was effected to allow insurance carriers and other submitting parties sufficient advance time for submission of matters requiring state Committee review. Because the bulk of review is now being accomplished at the Trustee District and county society level, it has not been necessary for the state Committee to meet more often than each quarter.

For the convenience of peer review committee chairmen, a number of forms and form letters were adopted so that time-consuming and costly correspondence would be kept at a minimum. In March, a meeting of all Trustee District and county society review committee chairmen was convened where these forms were discussed and approved as were guidelines for review committee operations. Although the Committee guidelines were not intended as hard standards, they have proven to be useful in guiding review procedures and have helped to standardize the system.

A new trend in the adjudicative process occurred this year with an increase in the number of claims submitted involving utilization. It is our feeling that utilization review serves to underscore the responsibility of review committees because the adjudication of quality of care is required. It has been our experience that such quality care review provides a true and unique educational opportunity for both review committee members and attending physicians, and for this reason, we encourage each hospital utilization review committee to become as deeply involved in review matters as possible.

Although the state Committee is not directly involved in the "Norms for Care" project being directed by the KFMC Board of Directors, we noted with interest the activities of the members of the KMA Interspecialty Council in this regard and would certainly endorse their efforts.

The committee is aware of the question raised by many concerning the future of the current peer review mechanisms with regard to the effects of PSRO. Public Law 92-603 requires that PSRO be applicable,

at least for the present, only to beneficiaries of the Medicare and Medicaid programs. It is obvious, however, that any form of national health insurance will be interrelated with PSRO operations. We feel, though, that in view of the many uncertainties that have surrounded the PSRO program thus far, not withstanding the unknown future of national health insurance, the need for the present review system will continue to be substantial for quite some time. We feel that the review efforts of private practicing physician peers constitutes an effective buffer between the practitioner and those non-professionals who would mandate medical care by administrative edict.

I feel that all Kentucky physicians owe a great debt of gratitude to all KMA peer review committee members for their difficult and often thankless efforts.

W. Neville Caudill, M.D., Chairman

Recommendations, Reference Committee No. 4

The committee reviewed the Report of the KFMC Claims and Utilization Review Committee. We recognize and appreciate the importance of this committee's work.

Mr. Speaker, I move adoption of this section of the report.

(Motion was seconded and carried.)

Report of the Kentucky Foundation for Medical Care

Report of the Health Insurance Standards

The Committee met twice during the year and continued its research into the feasibility of adopting minimum standards for health insurance. Earlier efforts had shown that evaluation of all individual policies sold in the state of Kentucky was impossible as some 700 different policies are available. Research was, therefore, directed this year to accomplishments by other groups who had studied the subject in hopes of formulating some general guidelines.

On the basis of noteworthy accomplishments in this area, groups contacted were the state Departments of Insurance of California, Georgia, Arizona, and Massachusetts; the National Association of Insurance Commissioners; and the Health Insurance Association of America. Quite a volume of material was eventually received from these groups, and in summary, the most affirmative aspects of establishing minimum standards for health insurance appeared to be:

There should be honesty in advertising of insurance policies and individual policyholders should be informed of the exact nature of coverage provided as well as that not provided.

Health insurance benefits provided should be of real economic value to the insured. The designation of "real" economic value would, of course, vary according to the purpose of the policy. Fraudulent, illusory, and economically unsound policies with regard to coverage, duration of benefits, and costs should be prohibited.

One group, the National Association of Insurance Commissioners, had developed a "model" health

insurance policy statute and were working on "ideal" implementing regulations that could be introduced to state legislatures. This model health insurance policy was to cover certain minimum requirements, but avoided very rigid guidelines, leaving to the insurance commissioner his objective appraisal of any new policies as to whether these were in the "public interest".

It was noted that there should be a concern over the possible inflexibility of a minimum standards law particularly because some insurance policies have been developed to supplement other policies of individuals or groups.

The Committee recognized the potential impact of national health insurance and realized that the efforts and deliberations of a committee such as ours might be totally out of order as basic standards may be set by national governmental committees. It was, therefore, concluded that to try to set minimum insurance standards and minimum coverage to be provided by policies was unrealistic but certain minimum guidelines could be identified and should be followed.

On the basis of all of its studies, the Committee, therefore, recommends the following proposed guidelines for minimum health insurance coverage:

1) The insurance carrier should be responsible for informing each policyholder of the exact coverage provided by his insurance policy including services excluded.

2) Insurance carriers should encourage purchasers to obtain coverage that is adequate and equitable to current medical and hospital costs but no purchaser should be prohibited from buying any coverage offered.

3) Insurance purchasers should be encouraged to acquire only that insurance that is of sound economic value.

4) All insurance companies selling health insurance in the Commonwealth should be required to adhere to basic principles of honesty in advertising and operation.

5) Policyholders should be encouraged to periodically update their coverage by the carrier to reflect increased costs.

The Committee was fortunate this year in having the advice and suggestions of Mr. Rufus Sadler, representing the Kentucky Health Insurance Council, and Mr. James S. Judy, representing Kentucky Blue Cross-Blue Shield.

Richard F. Grise, M.D., Chairman

Recommendations, Reference Committee No. 4

The Report of the KFMC Health Insurance Standards Committee was reviewed and approved.

Mr. Speaker, I move adoption of this section of the report.

(Motion was seconded and carried.)

Report of the Kentucky Foundation for Medical Care Report of the Health Manpower and Placement Services Committee

This year the Health Manpower and Placement Services Committee devoted most of its time to the

consideration of allied health professions training programs within the state.

Particular discussions centered about the role and purposes of the physician's assistant. A rather comprehensive review was made of the Clinical Associate Program at the University of Kentucky, the only Physician's Assistant program within the state. The Committee reinforced its endorsement of the program and expressed its continuing interest in its progress.

Another area of concern to the Committee was the problem of locating allied health programs in regions of need. Continuing surveillance by properly staffed Comprehensive Health Planning "B" agencies offers a potential for providing the data necessary for making such decisions.

In addition, the Council on Public Higher Education is engaged in a comprehensive study of the health manpower needs within the state. Its final report due early next year should be of great help in providing specific information on areas of health care personnel shortages.

Joseph Hamburg, M.D., Chairman

Recommendations, Reference Committee No. 4

The Report of the KFMC Health Manpower and Placement Services Committee—KFMC 6, was reviewed and approved.

Mr. Speaker, I move the adoption of this section of the report.

(Motion was seconded and carried.)

Report of the Board of Directors of Kentucky Physicians Mutual, Inc.

As Chairman of the Board of Kentucky Physicians Mutual, Inc. (Blue Shield of Kentucky), it is a pleasure for me to present a report of another year of growth and positive accomplishments. The challenges to health care providers and to Blue Shield and the voluntary system continue. Priority issues continue to be health care cost and its constant increase, governmental involvement, public attitudes and press coverage.

The impact of the President's Economic Stabilization Order was still with us in 1973; however, we had an excellent year of new enrollment. In 1973, 1,333 additional companies voluntarily enrolled their employees and dependents in Blue Shield of Kentucky, making a total of 13,967 member groups. This produced a membership growth of 5.40% over the previous year. Over 1,300,000 Kentuckians are now covered by Kentucky Blue Shield. In 1973, Blue Shield of Kentucky paid in excess of \$26,922,482 for services rendered to its members bringing the total payment to physicians, since the organization of Blue Shield of Kentucky in 1949, to over \$208,000,000.

More than 784,000 of our members carry additional benefits through Major Medical and Extended Benefits to help pay the cost of long-term and catastrophic illness, and some 75,588 people are protected by the Blue Cross and Blue Shield Medicare Supplemental Program. The Prescription Drug Program now has 36,578 members; and during last year, \$455,812 was paid in prescription benefits.

Physicians, hospitals, Blue Cross and Blue Shield and the entire health industry have been under strict price controls since August, 1971. With the lifting of these controls effective May 1, 1974, close public and governmental scrutiny of health care costs became evident. Many people predicted huge increases in hospital rates and professional fees. Rates and fees have gone up since the lifting of controls. These increased charges have a direct effect on Blue Cross and Blue Shield payments and general dues increases are being delivered at this time. All Class I groups (under 50 employees) and nongroup subscribers are receiving adjustments beginning September 1, 1974, and increases in the inflationary trend factors have been instituted in rating larger groups.

We may at last be at the point where many low benefit programs can be eliminated from the marketplace. Discussions have been held with the Commissioner of Insurance about automatically upgrading the benefits of those subscribers now covered by Standard Blue Cross and Standard Blue Shield. We hope to be in a position to make a positive report on upgrading these contracts in next year's report.

We have watched with much interest the debate that has been occurring over national health insurance for the past few years. Our national offices believe that the voluntary system will continue to play a vital role in NHI and that the passage of such legislation will provide many new challenges and opportunities. We believe that our elected officials in Washington recognize that the health care system in America has far more strengths than some would lead us to believe and that the ultimate NHI bill enacted will build upon the best of what now exists, maximizing the services available through voluntary prepayment organizations.

To date, our Blue Shield Plan has maintained its financial stability and continues to have one of the lowest operating costs per member of Blue Shield Plans of our size across the nation. We have \$10.89 reserve per member.

The physician staff of Blue Cross and Blue Shield's Medical Services Consultation has been expanded with the addition of Parnell Rollings, M.D., joining Henry Asman, M.D., and Frank Radmacher, M.D. Doctor Rollings, a family practitioner, joined the staff in February, 1974, as a Medical Consultant.

Some areas of new development are: revision and wider marketing of diagnostic outpatient coverage; expansion of Major Medical Certificates to maximums of \$250,000; and consideration to lowering eligible employer groups from a minimum of five employees to a minimum of two employees.

We now have over 252,000 Kentuckians covered by Usual, Customary and Reasonable Programs. Physician participation continues to increase with 2,490 Kentucky physicians participating. In 1973, 194,090 Usual, Customary and Reasonable claims were processed, representing payment for professional services in excess of \$8,507,821. Of these claims, only 3,647 required special handling by our Professional Relations staff and 3,274 of them were processed either by additional information or reconsideration of the submitted fee. Only 310 cases

(or less than two-tenths of 1% of all cases processed) required review by peer review committees.

At the direction of the Blue Shield Board, staff has continued with the development of individual physician fee profiles for use in the administration of the Usual, Customary and Reasonable Program. The computer programming has been completed, and individual fee profiles are scheduled to be produced for each physician submitting Blue Shield claims on or after January 1, 1975. The use of profiles will provide improvements in the administration of the Usual, Customary, and Reasonable Program. Prior to implementing the profiles, a discussion will be held with each individual physician, and an agreement reached on his profiled charges. This will enable the physician to know in advance what to expect regarding Blue Shield's Usual, Customary and Reasonable payments for his services, and the use of profiles in general will better enable staff to define charging patterns, and more accurately rate employee groups who are enrolled in Blue Shield's Usual, Customary and Reasonable benefits. Prior to implementing individual fee profiles on a statewide basis, staff will test the profiles with several groups of physicians who have offered to assist. Modification in programming and systems affecting the production of profiles can be made as a result of these experiments and profiles for the Usual, Customary and Reasonable Program can be fully operative by early 1975.

The coding and nomenclature system used in processing Blue Shield claims was developed in 1964 and has become outdated by advances, new procedures and techniques of modern medicine. On January 1, 1975, a new coding and nomenclature system developed by the National Association of Blue Shield Plans will be implemented. This is a very comprehensive four digit system and will be a positive accomplishment in better defining services rendered by physicians, and thus will improve the accuracy of our claims processing.

The Utilization Review Program has been developed to establish norms and patterns of health care in Kentucky. Using data gathered from inpatient hospital cases, the computerized program maintains statistical information from which routine, special and exception reports are generated. Using these reports, an educational approach is being taken with providers of care. Each hospital in the state has now been presented a Utilization Review report outlining data gathered from 1973 inpatient Blue Cross cases. Quarterly follow-up reports have also been generated and sent to each hospital. These reports can be very valuable to the Medical Staffs and Utilization Review Committees of our hospitals in monitoring and evaluating medical care and individual physician practices.

Provider response has been excellent and several hospital Utilization Review Committees have requested additional reports and special studies.

We are all aware of Congress' mandate to develop Professional Standards Review Organizations. Blue Shield of Kentucky has continued to work closely with the Kentucky Medical Association, the Kentucky Foundation for Medical Care and the Kentucky Professional Review Organization in the PSRO de-

velopment. We see a very viable role in working with the development in such areas as providing statistical information for developing standards for medical care, parameters for case review, communications and education with the review committees and provider segment. We recognize the necessity of working with and helping make successful any Professional Standards Review Organization approach that is developed because of our responsibility to our subscribers and the dollars they have entrusted with Blue Shield of Kentucky.

PSRO legislation emphasizes more than ever before the need for data gathering and reporting programs such as the Kentucky Utilization Program (KUP). There are now over 50 hospitals participating in the KUP Program and we expect the number of participating hospitals to increase with the legislated need for such information.

Blue Shield has previously reported to the KMA House of Delegates our position to experiment with alternate methods of health care delivery. With the passage of a Federal Health Maintenance Organization Act, and the passage of a State Health Maintenance Organization Act, several federally funded HMO's have begun operation. Those currently in existence represent a closed panel approach. Blue Shield, jointly with Blue Cross of Kentucky, has now developed a prototype of an experimental Alternate Delivery System utilizing the Individual Practice Association approach which represents open panel practice.

With operating HMO's now in existence it is necessary for Blue Shield to step up its timetable of development and implementation. The Individual Practice Association approach eliminates the need for and the cost of financing new bricks and mortar which may be duplicative of existing facilities. This approach proposes contractual relationships with physicians in the setting in which they currently practice medicine. In order to be competitive in the marketplace and to be able to offer a true dual choice to subscribing members, the new program will be developed in a manner that it can eventually be certified by HEW under the Federal Health Maintenance Organization Act of 1973. It will also meet the criteria of the HMO Act passed by the 1974 session of the Kentucky Legislature.

As in the past, Blue Shield's Alternate Delivery System will seek the support of organized medicine and will operate within the framework of the Kentucky Medical Association and its constituent County Medical Societies. The Individual Practice Association approach is one that has the flexibility to be utilized in both a rural and an urban setting, and continues to permit the subscribing member a free choice of hospitals and a free choice of physicians. We propose to have it operational within the next 12 months.

The Consumer Advisory Committee to Blue Shield continues to express concern over increasing health care costs and has urged the Board of Directors of Kentucky Blue Shield to expedite its development of an Alternate Delivery System permitting dual choice among members. They also have expressed support for the continued implementation of

programs which help contain costs while maintaining quality care.

The voluntary prepayment system is strong, vital, and continues to grow. There are many dedicated people in and out of medicine who voluntarily give of their time to make it work and we are extremely grateful to them. As Chairman of the Board and speaking for the Board, we know our objectives are in the best interest of the people, the medical profession, and our voluntary system. We again thank the entire medical profession of Kentucky and the staff of the Kentucky Medical Association for their cooperation and contribution in the past year. We know that our future successes and failures will be largely dictated by how we respond to the opportunities and challenges facing the voluntary system.

George W. Pedigo, M.D., Chairman

Recommendations, Reference Committee No. 4

The committee reviewed the Report of the Board of Directors of the Kentucky Physicians' Mutual, Inc. Special attention should be drawn to two pages in this report. These are page 14.4, the first full paragraph having to do with individual fee profiles of physicians; and the two full paragraphs on page 14.7, regarding the development by Blue Shield of an HMO type health care delivery system.

Mr. Speaker, I move adoption of this section of the report.

(Motion was seconded and carried.)

Report of the Advisory Committee to Blue Cross and Blue Shield

The KMA Advisory Committee to Blue Cross and Blue Shield met at the KMA Headquarters office on April 3, 1974.

The first order of business was to review that the purpose of the Committee is to "Monitor the operation of Kentucky Blue Cross and Blue Shield with the objective of striving to furnish for the public the most advantageous coverage possible for the premium dues paid, avoiding abuses of Blue Cross and Blue Shield to include studying and correcting trends before they develop into abuses and continuing to keep Kentucky physicians informed, interested and with a voice in the operation of Blue Cross and Blue Shield."

In addition to Mr. Doug Sutherland, Vice President; and Mr. Tom Stroud, Director of Professional Relations; we were pleased to have Blue Shield's Director of Medical Service, Henry B. Asman, M.D., and Parnell Rollings, M.D., who recently joined the Blue Shield staff, with us.

The following will summarize staff reports that reflect continued activity and leadership provided by Kentucky Blue Cross and Blue Shield.

Enrollment

Staff reported that 1973 was the second best year in the history of Kentucky Blue Cross and Blue Shield for membership growth. Your Advisory Committee heard reports indicating that a great deal of effort is being placed in upgrading existing lower

benefit programs to a more realistic coverage. Many Standard Blue Cross and Blue Shield certificates were updated during 1974 and discussions are being held with the Department of Insurance concerning the possibility of automatically upgrading them.

The Committee learned that there has been a major expansion of the Major Medical certificates to a maximum of \$250,000. This increased coverage is limited to groups of fifty or over at present and there are now 13 such groups which total 7,265 contracts. More groups will be upgrading to this benefit in the future.

Staff also reported that they are continuing to market their Usual, Customary and Reasonable certificate and more and more companies are going to this paid-in-full type program rather than the indemnity plans. Staff also reported that the Delta Dental Plan is growing with several groups enrolled and several more expressing considerable interest in it.

Professional Relations

During 1973, the Professional Relations staff contacted over 7,000 physicians' offices, personally contacting the physician in over 2,300 of these calls. In addition, the staff made 2,478 hospital calls, 400 contacts for skilled nursing facilities, 142 calls on home health agencies, 864 in dental offices, 189 calls on pharmacies and completed 170 Utilization and Review surveys for Part A Medicare.

The Professional Relations staff also made 455 other contacts which included Kentucky Hospital Association meetings, Hospital Conferences and Kentucky Medical Association meetings.

Claims

During 1973 Blue Cross and Blue Shield processed a total of 1,340,000 claims. It was noted that with this volume of claims there are problems that require considerable staff time for research and solution. Of primary concern is claims submitted for services not covered under certificates of membership. These claims require as much time and expense to process as do claims for covered services. An intensified Provider Education Program has been directed towards this problem. We were pleased to learn that Blue Shield is developing a national claims processing system called Reciprocity. This new system will enable Kentucky Blue Shield to provide direct payment to Kentucky physicians for covered services rendered to certain eligible out-of-state Blue Shield members. The employees of the motors industry will have Reciprocity benefits effective June 1, 1974, and it is anticipated that ten million people will be covered by Reciprocity by the end of the year.

In our discussion of claims that must be delayed for an exceptional length of time, the Committee suggested that the physician's office should be advised. Staff agreed to research this matter and would report back to the Committee at a later date.

Coding and Nomenclature

We were advised that the current coding and nomenclature system used by Blue Cross and Blue Shield is becoming outdated. Kentucky Blue Cross and Blue Shield is adopting the National Blue Shield coding and nomenclature system and it will be im-

plemented effective January 1, 1975. There will be no changes in the physicians billing procedures and we were advised of it for information only. The new system is highly flexible and is directly convertible to AMA's Current Procedural Terminology (CPT), if necessary.

Usual, Customary and Reasonable

Blue Shield's Usual, Customary and Reasonable Program was developed in close cooperation with KMA's Advisory Committee to Blue Shield. The program was initiated in 1968 and currently there are over 200,000 Kentuckians covered under programs administered on the UCR basis with some 78% of the physicians participating in the program.

The Committee was advised that some improvements in the program are planned; one of which is the use of individual physician fee profiles in the administration of the program. Individual profiles will allow Blue Shield to more closely utilize the physicians' usual charges as the guideline for any covered procedures for which Blue Shield claims are received. When this is implemented such profiles will enable physicians to know in advance what payment can be expected from Kentucky Blue Shield for covered services rendered to members with UCR benefits.

It is anticipated that profile implementation will require personal contact with each physician in Kentucky to discuss his own fee profile. The recommendation was made that profiles be produced for each member of the Advisory Committee to Blue Cross and Blue Shield and that individual discussions be held with each member as a test program prior to contacting all physicians. Blue Shield plans for the program to be implemented early in 1975.

Utilization Review

A computerized program has been developed which identifies norms or patterns of care based on all data from all inpatient Blue Cross cases. Length of stay and ancillary service perimeters have been developed for every major disease category and quarterly reports will be generated and sent to every hospital. Professional Relations representatives will be available to meet with medical staffs and UR committees to discuss this program in more detail.

Alternate Delivery Systems

The Committee acknowledged receipt of a section of the final report of the Board of Directors of Kentucky Physicians Mutual to the 1973 KMA House of Delegates which stated their desire to cooperate with KMA in participating in any alternate health care delivery system. We were pleased to learn that the corporate policy on health care delivery experiments of Blue Cross and Blue Shield of Kentucky when working with consumer groups, the Kentucky Medical Association, Hospitals and County Medical Societies will be to lend expertise and counseling, including marketing, professional relations and administrative know-how and service. The overall objective will be to help guide these developments to a self-supporting basis so as to not increase the cost of care by duplication of services. The Committee

learned that there are as many as 18 separate HMOs in various development stages in Kentucky at the present time ranging from a closed panel type to the foundation type of program.

In 1971, the KMA House of Delegates asked Blue Shield to qualify as an HMO in the belief that Kentucky Blue Shield could be the stabilizing factor in the various health care delivery systems being conceived at that time. With the atmosphere of co-operation among the leadership of medicine, hospitals, management and labor, Blue Cross and Blue Shield Plans, and the current interest in recently enacted legislation with regard to experimental delivery systems, perhaps the time has come for Blue Cross and Blue Shield to take a leadership position in the development and administration of an experimental program in cooperation with the voluntary system. We learned that development of such a program has been initiated which is designed to have the flexibility to be utilized throughout Kentucky to meet the needs of subscribers to Blue Cross and Blue Shield as well as the providers of health care.

This Committee in its role of maintaining a close working liaison with Blue Cross and Blue Shield hopes to continue to reflect the policies of this Association and to provide assistance in the upgrading of Blue Cross and Blue Shield coverage for our citizens.

Kenneth P. Crawford, M.D., Chairman

Recommendations, Reference Committee No. 4

The committee reviewed the Report of the Advisory Committee to Blue Cross and Blue Shield. Special note again was made in this report of the individual physician profiles being compiled by Blue Shield and of Blue Shield's efforts to develop a program which will qualify as an HMO.

Mr. Speaker, I move adoption of this section of the report.

(Motion was seconded and carried.)

Report of the Committee on Community and Rural Health

The Committee on Community and Rural Health continues to maintain its interest in the delivery of health care in urban and rural areas, particularly with regard to distribution of health manpower. In this area, the Committee is continuing to work with the Kentucky Chamber of Commerce in setting up a program to attract more health personnel to Kentucky as well as other business.

KMA representatives met with Chamber officials on two occasions this past year to initiate some type of workable program. The problems involved are numerous and each is extremely complex. Discussions have been held to determine the feasibility of emphasizing positive aspects of health care in various communities in publications the Chamber currently puts out to attract industry to particular areas. Although the program is still in the formulative stages, we are hopeful that some type of workable agreement can be arranged for implementation.

The Committee is maintaining its interest in the problem of alcoholism and was pleased to have two

representatives from the Kentucky Bureau of Human Resources, Department of Alcoholic Rehabilitation and Detoxification attend our meeting. We learned that there are currently 13 programs in existence in Kentucky in relation to health which involve 84 million dollars and over 6,000 people. We found the State representatives to be extremely interested in involving more of the private sector in alcoholism and detoxification and it was pointed out that their fundamental objective is to formulate programs and have the local mental health boards and comprehensive health planning councils implement them. Other objectives are to urge contact between professionals and legislators in order to give these programs a more solid basis; to urge community acceptance of alcoholism as a medical problem and not a moral one; and to increase physician awareness by setting up programs on current concepts of alcoholism, management techniques, and ancillary services available to them from state government.

With regard to these goals, the Committee has worked in conjunction with the Department of Alcoholic Rehabilitation and Detoxification in working toward the presentation of an exhibit on this subject during the 1974 KMA Annual Meeting. We are hopeful that this will be finalized by Annual Meeting time and would urge everyone attending the Annual Meeting to look for the exhibit in the scientific exhibits section.

Representatives of the Committee attended the 27th National Conference on Rural Health held the end of April. We feel these meetings are very informative and that many of the concepts discussed nationally can be applied to local problems.

It has been a distinct pleasure for me to serve as Chairman of the Committee through the past Associational year. I appreciate the interest, attentiveness, and active participation of the Committee members in the Committee's activities.

Stephen B. Kelley, M.D., Chairman

Recommendations, Reference Committee No. 4

The committee reviewed the Report of the Committee on Community and Rural Health. The work of this committee on the problem of alcoholism is especially noted.

Mr. Speaker, I move adoption of this section of the report.

(Motion was seconded and carried.)

Report of the Committee on Health Care of the Poor

The purpose of the Committee is to study the problem of health care of the poor, particularly in the central-city poverty areas and the rural areas of the Commonwealth and to recommend appropriate actions to the KMA Board of Trustees.

The Committee also maintains liaison with the AMA Committee on Health Care of the Poor and follows the progress made by similar committees in other states.

Informational studies have been made on the idea of a multi-county, mini-clinic, which would provide

24-hour primary care with a working arrangement and availability to secondary and tertiary care facilities. Much activity has been in the direction of trying to identify a location of need. A number of demographic studies were made, and Webster County was selected for further consideration. Trips have been made by the Chairman, staff, State and university officials. Meetings have been held both at the KMA office and in the Webster County area with representatives of the University of Louisville School of Medicine, State officials, physicians and community leaders. It is hoped that a more concrete proposal will be forthcoming in the near future.

In mid-August, our Committee will meet in Louisville with the AMA Committee on Health Care of the Poor to exchange ideas for future consideration.

I would like to take this opportunity to thank the members of this Committee, Bush A. Hunter, M.D.; Millard C. Loy, M.D.; Paul F. Maddox, M.D.; James W. Rackley, M.D.; and Leroy E. Thompson, M.D., for their work during the year.

Robert C. Long, M.D., Chairman

Recommendations, Reference Committee No. 4

The committee reviewed and approved the Report of the Committee on Health Care of the Poor.

Mr. Speaker, I move adoption of this section of the report.

(Motion was seconded and carried.)

Report of the Committee on School Health, Physical Education and Medical Aspects of Sports

The Committee on School Health, Physical Education and Medical Aspects of Sports had one formal meeting in 1974 on May 16. At that time the Committee sponsored a Seminar on the Medical Aspects of Sports in conjunction with the Kentucky High School Athletic Association and the Eastern Kentucky University. This was a very enlightening meeting with many prominent speakers which included James F. Molloy, M.D., Louisville; Donald L. Cooper, M.D., Stillwater, Oklahoma; and Isao Hirata, Jr., M.D., Columbia, South Carolina. Also, the Committee has continued their lectures to football coaches on medical problems that are apt to develop with their players. This has been done in conjunction with the Kentucky High School athletic Association Rule Clinics.

The Committee plans to continue sponsoring a Medical Aspects of Sports Seminar, but they desire to rotate the hosting of the program among universities throughout the state and thus make important information more readily available to coaches, trainers, and team physicians.

Also, the Committee is in the process of developing a comprehensive first aid and sick room manual to be used in the elementary and secondary schools in Kentucky.

The Committee thanks the Board of Trustees of the Kentucky Medical Association, Doctor Fred Rainey, our President, and Jerry Mahoney, Director of Communications, from the staff of the Kentucky

Medical Association, and urges their continued support of our programs.

Ronald E. Walldridge, M.D., Chairman

Recommendations, Reference Committee No. 4

The committee reviewed the Report of the Committee on School Health, Physical Education and Medical Aspects of Sports. We approve the continuation of the seminars on the Medical Aspects of Sports.

Mr. Speaker, I move adoption and implementation of this section of the report.

(Motion was seconded and carried.)

Report of the President

Topic VIII Dealing with PSRO and KPRO Only

This year has been a most troublesome and bothersome year so far as I am personally concerned relative to this topic. As you well know, PSRO is the law and as you well know this House took a position last September to direct the Board to proceed along the lines as was recommended to the House by the Kentucky Foundation for Medical Care. I would be less than honest with you if I didn't say that I have heard PSRO so much and for so long this year that I am personally sick of hearing it. However, regardless of how nauseated I may have become, it still remains with us and we must deal with it. I personally feel that the position assumed by AMA was, although not one which totally pleases all of us, a wise position to take. I also feel that it was the only practical position to assume. I cannot state too strongly that physicians must maintain control of this program not only for the convenience and co-operation of our members but for the benefit of our patients as well. I feel that the plan for this program in Kentucky has been well organized and well thought out, and is as less objectionable as possible. Although there are areas of this program which are extremely distasteful to most of us, we must maintain "our cool" and continue to exert efforts to mold the program so that our patients will be served in the best manner possible.

Recommendations, Reference Committee No. 4

The committee reviewed and approved Topic VIII of the President's Report dealing with PSRO and KPRO only.

Mr. Speaker, I move for the adoption of this section of the report.

(Motion was seconded and carried.)

Resolution B

KMA Board of Trustees

WHEREAS, the Kentucky Foundation for Medical Care was formed to conduct peer review activities in the Commonwealth in anticipation of a potential federal medical care appraisal requirement, and

WHEREAS, that responsibility has been fulfilled with the establishment of the Kentucky Peer Review Organization which meets federal organization guidelines, and which has been designated as the organization to perform PSRO activities in the state, and

WHEREAS, the Foundation has completed the initial task for which it was organized, therefore be it

RESOLVED, that the active KFMC committees be transferred back under the auspices of KMA and that the KFMC be retained for such further activities and responsibilities as shall be appropriate in the future.

Explanatory Note: The KMA Board of Trustees as sole members of the Kentucky Foundation for Medical Care has taken the above action but felt it appropriate for the House of Delegates to have the opportunity of concurring or otherwise voicing its opinion.

Recommendations, Reference Committee No. 4

The committee reviewed Resolution B, introduced by the KMA Board of Trustees. We approved of this action.

Mr. Speaker, I move the adoption and implementation of this section of the report.

(Motion was seconded and carried.)

Resolution D

KMA Board of Trustees

WHEREAS, the Kentucky Medical Association has a position of encouraging experimentation with alternate delivery systems; and

WHEREAS, in the last three or four years substantial activity with regard to HMO developments has been going on throughout Kentucky; and

WHEREAS, legislation has been passed at both the state and federal levels that provides regulations of HMOs while at the same time encouraging their development through funding mechanisms and mandating access to market provisions; and

WHEREAS, three federally funded HMOs are currently in operation embracing the closed panel approach; and

WHEREAS, Blue Cross and Blue Shield have developed an alternative delivery system designed to meet the requirements of the state and federal legislation and utilizing the Individual Practice Association (open panel) embodying the following principles:

- One that would utilize existing physicians, providers and facilities,
- One that preserves free choice of hospitals, physicians and other providers,
- One that would offer to the member a choice of delivery systems,
- One that would offer to the physician reimbursement based on either fee-for-service or capitation:

Therefore be it

RESOLVED, that the Kentucky Medical Association House of Delegates endorse the principles of the Individual Practice Association (open panel) alternate delivery systems such as being developed by Blue Cross and Blue Shield and further encourage Blue Cross and Blue Shield to continue its leadership role.

Recommendations, Reference Committee No. 4

The committee reviewed Resolution D, introduced by the KMA Board of Trustees, dealing with Alternative Delivery Systems. This has to do with encouraging Blue Cross and Blue Shield to continue their development of the Individual Practice Association, which will meet the state and federal requirements of an HMO.

Mr. Speaker, I move the adoption of this section of the report.

(Motion was seconded and carried.)

Resolution F

Campbell-Kenton County Medical Society

WHEREAS, since the United States Federal Government has taken unto itself the regulation of the practice of medicine and the rationing of quality medical care, and invaded the confidentiality of patient's medical records through the passage and implementation of Public Law 92-603, setting up nationwide surveillance mechanisms, therefore be it

RESOLVED, that the Kentucky Medical Association is and will remain unalterably opposed to Public Law 92-603 and directs its Board of Trustees and members to work unceasingly for its repeal, and be it further

RESOLVED, that the Kentucky Medical Association urge all of its members not to cooperate with the Kentucky Peer Review Organization or any other Peer Review Organization that is established in Kentucky and that the Kentucky Medical Association is opposed to all Peer Review Organizations that might be formed in this state, and be it further

RESOLVED, that the Kentucky Medical Association will file an amicus curiae brief in Federal Court along with medical Associations that have already done so, challenging the constitutionality of Public Law 92-603 and that the Kentucky Medical Association shall assist in defraying the legal expenses of such a suit in the amount of \$5,000.

Resolution H

Campbell-Kenton County Medical Society

WHEREAS, because the passage and implementation of Public Law 92-603 shall interfere with the ethical practice of medicine and will be dangerous to patient care, therefore be it

RESOLVED, that if the American Medical Association does not file suit by July 31, 1975 in Federal Court challenging the constitutionality of Public Law 92-603, that the Kentucky Medical Association House of Delegates shall consider at its September, 1975 House of Delegates Meeting whether or not the Kentucky Medical Association shall continue as a component state society of the American Medical Association or terminate this relationship.

Resolution J

Warren County Medical Society

WHEREAS, the PSRO law is ill-advised in that it is or threatens to be detrimental to patient and

doctor by, among other things, invading confidentiality and undermining quality of care, and

WHEREAS, the Kentucky Medical Association is an organization concerned with the freedom of the people of Kentucky to obtain quality medical care, therefore be it

RESOLVED, that the Kentucky Medical Association encourage its member physicians not to participate in implementation of the law, and be it further

RESOLVED, that the Kentucky Medical Association seek outright repeal of the PSRO law. (Section 249F of Public Law 92-603).

Resolution Y

KMA Board of Trustees

WHEREAS, the "Bennett Amendment" establishes as the "law of the land" that there will be a PSRO in Kentucky, and

WHEREAS, if a physician organization does not qualify for and perform the tasks required by the law, the Secretary of HEW must appoint such other public, non-profit private, or other agency or organization which he determines can and will perform such tasks, and

WHEREAS, there exists in Kentucky an organization (KPRO) founded and directed by practicing physicians for the implicit purpose of assuring that whatever professional review is done by legislative mandate will be done with proper regard for the rights and privacy of both patients and physicians in keeping with the interest of the House of Delegates' action in 1973, and

WHEREAS, KPRO is now operating only in a planning stage with no plan yet finalized for submission to the government for a conditional grant, and

WHEREAS, most physicians, while skeptical of the motives leading to the passage of the Bennett Amendment and concerned that the implementation of this law could, in some respects, be detrimental to the well-being of our patients, nonetheless recognize that it is law, now therefore be it

RESOLVED, that the Kentucky Medical Association endorse KPRO as the required PSRO for Kentucky, and be it further

RESOLVED, that the Kentucky Medical Association encourage its members to participate in the KPRO so that input of practicing physicians will be insured in the actions and policies of that organization while at the same time reiterate our policy of opposition to PSRO and support of the position and amendments of the American Medical Association to make desired changes in this law.

Recommendations, Reference Committee No. 4

Resolutions F, H, J and Y, all of which deal with PSRO, were discussed simultaneously and at great length. There was a general expression of dissatisfaction with the PSRO law. Differences of opinion regarding our present attitude toward implementation of the law were apparent in the discussion before the committee.

This reference committee felt that our present stance with regard to PSRO was more properly reflected by Resolution Y than by Resolutions F, H and J.

However, Mr. Speaker, one member of the reference committee, Doctor Jerry Sutkamp, filed a minority report as follows:

"As a member of Reference Committee No. 4, I represent the minority vote and recommend the adoption of Resolution F as introduced by Campbell-Kenton County Medical Society, dealing with opposition to PL 92-603. There were a sufficient number of delegates at the Reference Committee supporting Resolution F to warrant my vote to adopt this resolution."

Mr. Speaker, on behalf of the majority of Reference Committee No. 4, I move that Resolutions F, H, and J not be adopted and that Resolution Y be adopted.

The motion was seconded from the floor.

Doctor Frank Pitzer rose and moved for the question. A vote was taken and the motion carried 105 to 51.

Doctor Howard Heringer rose and moved for a roll call on the vote. The motion was seconded and a hand vote taken, and the motion was defeated 89 to 46.

A vote was then taken on Doctor Brewer's motion on behalf of Reference Committee No. 4, and the motion carried 110 to 33.

Doctor Daryl P. Harvey rose to a point of personal privilege and asked whether or not the vote on Doctor Pitzer's motion for the question would stand, inasmuch as some Delegates had not registered their attendance for the second session. He asked the Speaker if the vote still stands.

The Speaker ruled that the Delegates voting were duly elected and qualified, and their vote stands. There was no appeal taken to the Speaker's ruling.

Resolution G

Campbell-Kenton County Medical Society

WHEREAS, since the Federal Government has undertaken to subsidize the establishment of Health Maintenance Organizations as an alternative system of providing medical care, therefore be it

RESOLVED, that the Kentucky Medical Association shall undertake to encourage and persuade all third party insurance companies in this state to offer to their subscribers health insurance policies comparable to major medical policies including outpatient testing, so that private medical practitioners may be able to compete on an equal basis with Health Maintenance Organizations.

Recommendations, Reference Committee No. 4

The committee reviewed and approved Resolution G presented by Campbell-Kenton County Medical Society, dealing with Health Maintenance Organizations and Private Insurance Coverage.

Mr. Speaker, I move for the adoption of this section of the report.

(Motion was seconded and carried.)

Mr. Speaker, I move for the adoption of the Report of Reference Committee No. 4 as a whole. (Motion was seconded and carried.)

Mr. Speaker, as chairman, I wish to thank all members of this committee, Doctors McElvein, Richardson, Sutkamp and Zimmerman, for their efforts in helping to prepare this report. Our thanks, too, go to Miss Sharon Heckel for invaluable secretarial help.

REFERENCE COMMITTEE NO. 4

McHenry S. Brewer, M.D., Louisville, Chairman
Richard B. McElvein, M.D., Lexington
W. N. Richardson, M.D., Cadiz
Jerry C. Sutkamp, M.D., Bellevue
James B. Zimmerman, M.D., Pikeville

Minority Report of Jerry C. Sutkamp, M.D. Member of

Reference Committee No. 4

Resolution F—Opposition to Public Law 92-603 (Campbell-Kenton County Medical Society)

As a member of Reference Committee No. 4, I represent the minority vote and recommend the adoption of Resolution F as introduced by Campbell-Kenton County Medical Society, dealing with opposition to PL 92-603. There were sufficient number of delegates at the Reference Committee supporting Resolution F to warrant my vote to adopt this resolution.

REFERENCE COMMITTEE NO. 5

N. H. Talley, M.D., Princeton, Chairman

Reference Committee No. 5 considered the following reports and resolutions:

20. Report of the Committee on Business Management and Services
24. Report of the Advisory Committee to Selective Service
34. Report of the Committee on Public Relations
35. Report of the Committee on Governmental Services
36. Report of the Technical Advisory Committee on Physician Services (Title XIX)
 1. Report of the President; the following topics *only*
 - Topic IX (Public Relations)—pages 1.9 and 1.10
 - Topic XI (Medicaid)—pages 1.11 and 1.12
 - Topic XVI (Mental Health Programs in Kentucky)—pages 1.14 through 1.17
 - Topic XVII (Bureau of Health Services)—pages 1.17 and 1.18
 - Topic XVIII (Chiropractic Services)—Supplemental pages 3 and 4
 5. Report of the Chairman, Board of Trustees; the portion dealing with the Ad Hoc Committee on Mental Health-Mental Retardation—pages 5.9 through 5.14 *only*.

Resolution Q—Chiropractic Involvement with Medicare (KMA Board of Trustees)

Resolution R—Medicare and Medicare Payments (Pennyrile Medical Society, Inc.)

Resolution W—Requirements of Intermediate and Extended Care Facilities (Campbell-Kenton County Medical Society)

Resolution X—Medicaid (KMA Board of Trustees)

Resolution Z—Medicaid (Henderson County Medical Society)

Report of the Business Management and Services Committee

The primary purpose of the Business Management and Services Committee is to investigate programs that will provide tangible benefits for KMA members. The Committee members deemed it advisable to review the previously-approved programs by inviting representatives to a Committee meeting.

Representatives of the company who has our leasing agreement, the General Leasing Corporation, reported that they now have 126 members leasing automobiles. This corporation is also interested in providing to KMA members leasing arrangements for such items as office and laboratory equipment, furniture, recreational and telephone equipment. Additional leasing plans have been promoted through ads in *The KMA Journal*.

The KMA-sponsored hospital and major medical group insurance program is with Blue Cross-Blue Shield with 1,692 people in 660 offices covered by the plan. Three changes were made in the program approximately a year ago: (1) coverage under the plan for students to age 23; (2) hospital room allowance from \$25 per day to average semi-private room rates; and (3) changes in coverage under major medical for nervous and mental out-patient treatment from 50-50 to 80-20 percent. Effective February 1, 1974, there was a slight reduction in rates with the reserves in the group plan rated good. Blue Cross-Blue Shield exhibits at our Annual Meetings and advertises regularly in *The KMA Journal*.

During the past year KMA officers, trustees, alternate trustees, delegates and alternate delegates to AMA, KMA delegates, KMA committee members and KMA staff, for a total of 364 members and 21 staff members, have been provided with individual accidental death or dismemberment coverage of \$50,000 with an aggregate limitation of liability of \$300,000. The pre-paid policy, which was purchased after the review of competitive bids, is with the Lumbermens Mutual Casualty Company at an approximate cost of one dollar per person per year.

For the past two years, the Committee members have been interviewing a number of companies that provide for disability insurance. This year the Committee recommended, and the KMA Board of Trustees approved, the endorsement of the A. P. Lee Agency, which writes coverage through the Phoenix Assurance Company of New York. This agency currently provides coverage for over 700 Kentucky physicians. Informational material has been mailed to all KMA members, and ads are being placed in

our *Journal*. This agency is a regular exhibitor at our Annual Meetings.

Two additionally approved programs did not materialize. The first was a KMA-sponsored trip to Barbados scheduled for June 2-9, 1974. A number of difficulties were encountered in developing plans, which resulted in late and sparse promotion and a small number of reservations.

The second was a \$1,000,000 excess professional and personal liability umbrella insurance program, which would have provided additional liability and major medical coverage at a 15% discount. The sponsoring company later stipulated that it would be necessary that the carrier also be the underlying insurer. Inquiries have been made to other carriers without success.

During the coming Associational year, the Committee will continue to review plans and programs it believes will be of benefit to members of KMA.

Berel Lee Abrams, M.D., Chairman

Recommendations, Reference Committee No. 5

Reference Committee No. 5 reviewed the Report of the Committee on Business Management and Services and recommends that the report be accepted.

Mr. Speaker, I move the adoption of this section of the report.

(Motion was seconded and carried.)

Report of the Advisory Committee to Selective Service

The purpose of this quasi-governmental Committee is to maintain as much as possible an appropriate balance and distribution of medical personnel between our civilian population and the Armed Forces.

With the absence of a draft for physicians, dentists, or allied specialists, it was unnecessary for the Committee to meet during this Associational year. In April 1974, Congress enacted and the President signed into law (PL-93-274) a Military Special Pay Act, which provides for a service bonus up to \$13,500 a year for medical officers who agree to remain in the uniformed services.

The Committee members and Colonel Taylor Davidson and his staff with the State Selective Service office have been most helpful and cooperative.

Russell H. Davis, M.D., Chairman

Recommendations, Reference Committee No. 5

Reference Committee No. 5 reviewed the Report of the Advisory Committee to Selective Service and recommends that the report be accepted.

Mr. Speaker, I move the adoption of this section of the report.

(Motion was seconded and carried.)

Report of the Public Relations Committee

The early meetings of the Committee were spent primarily attempting to determine how best to promote and further a positive image for the profession to the public. There was lengthy discussion held

concerning the possibility of a speakers bureau; however, it was felt that this would be unwise and would not really provide the best format for improving public relations at KMA.

The Committee has determined that we should once more have a booth at the Kentucky State Fair. At the time this report is being written, we are proposing that there will be registered nurses and physicians staffing the booth and taking blood pressure readings for anyone in attendance at the Fair who might be interested in such a service. There has been discussion with the Kentucky Heart Association that this may possibly be done as a joint venture, but no final decision has been made as of the filing of this report. The plan would be to refer individuals with abnormal blood pressures to their private physicians.

The Committee has spent many hours in trying to develop a program for high schools and colleges concerning venereal disease control. There have been several unforeseen problems arising regarding the school systems and the rules and regulations under which they operate. At the time that this report is being written, a slide presentation is available from the KMA office to any group which may be interested in such a program. We are hopeful that the members of KMA will not hesitate to request the use of this program whenever they feel it could be of assistance in the schools and in other appropriate groups in their specific areas.

A Seminar for New Physicians was sponsored in conjunction with AMA-ERF on April 22 and 23, 1974. The seminar, which was restricted to 25 participants, was professionally staffed by representatives of George Conomikes and Associates. This group, working with state medical associations and the AMA, is providing an in-depth look at the many problems faced by new physicians in establishing a practice and the manner in which these problems can best be solved. The Committee had an extremely fine reaction from participants in this seminar, and it would be our recommendation that, on an annual basis, such a seminar be held by KMA.

A Patient/Public Relations Seminar for Medical Assistants was held in Louisville on June 13, 1974, and in Lexington on July 17, 1974. Approximately 300 medical assistants from throughout the state attended these seminars, and it is the feeling of the Committee that such a program could be of great and lasting importance to the image of the physician and to improving that image through his office staff. It is the recommendation of the Public Relations Committee that these seminars be held at regular intervals each year and that we make an attempt to hold seminars throughout the state so that more office assistants have an opportunity to attend.

The Committee also prepared an "In-House Brochure", which will be made available to all members of KMA, listing the services and the programs of the Kentucky Medical Association. This brochure is in the process of final printing and should be in the hands of all members prior to the end of the year.

As Chairman of the Public Relations Committee, I feel there were several important programs initiated during this Associational year. A considerable amount

of time and effort has been expended by members of the Committee and, although we did not achieve all of our objectives, we certainly feel that the many programs in which we were involved will be of immeasurable benefit to KMA as they are pursued in the years ahead. I want to personally thank each and every member of the Committee for their attendance, their interest, and their effort.

James B. Holloway, Jr., M.D., Chairman

Recommendations, Reference Committee No. 5

Reference Committee No. 5 reviewed the Report of the Committee on Public Relations and recommends it be accepted.

Mr. Speaker, I move the adoption of this section of the report.

(Motion was seconded and carried.)

Report of the President

TOPIX IX Dealing with Public Relations Only

I expressed early in the year my concern that we have spent too much time talking with other members of our Association and that we have spent too little time communicating with the general public relative to the problems which face medicine as we see them and hearing problems as they see them. Therefore, I have spent considerable time and effort this past year trying to determine what, in fact, the general public feels about organized medicine—what we might be doing wrong and what we are doing right—what they would like to see in the future and what they would not like to see in the future.

I am pleased to report that in my opinion the vast majority of people of Kentucky feel that quality medical care is in fact readily available and that they are quite happy with it. I have made an effort to communicate the problems as we see them to the people of Kentucky and have attempted to develop some sense of understanding as to problems which they may feel are presently existing and/or will exist in the future. It has been my privilege to appear on several television programs, radio programs, and before civic organizations to present organized medicine's view on the problems as we see them. I personally feel that efforts should continue to improve understanding and communication with members of the press and other organized groups within the State of Kentucky with whom we have more in common than we have differences. I personally feel that it is probably not possible to adequately convey to the general public organized medicine's concern about the many programs which are either existing or are proposed without spending a rather large sum of money which obviously we do not have. I do feel, however, that it is worthwhile to continue efforts on a much smaller scale such as has been done this year to keep the public informed as to how we feel about the problems facing medicine today and to allow them input to us relative to those problems and to receive their views.

As I have appeared on various programs, two primary complaints have been expressed by the public. One is the length of time spent in physician waiting

rooms and the other is difficulty in securing a family physician when the patient moves and/or when a change in physician is desired regardless of the reason. I personally feel that organized medicine has an obligation to assist those patients who express a desire to locate a new physician and who express difficulty in doing so. Therefore, I would recommend that the Kentucky Medical Association encourage county medical societies to assume the responsibility of assisting those patients who report to them that they have encountered difficulty in securing a family physician.

Recommendations, Reference Committee No. 5

Reference Committee No. 5 reviewed the Report of the President, Topic IX, dealing with Public Relations. Reference Committee No. 5 recommends that this topic from the President's Report be accepted as written.

Mr. Speaker, I move the adoption of this section of the report.

(Motion was seconded and carried.)

Report of the Committee on Governmental Medical Services

This eight-member Committee serves the Association as a referral body to which all matters dealing with governmental medical programs may be directed for specific study, clarification, advice or recommendation.

The Committee membership includes physicians who either now or in the past served on a KMA governmental medical committee or in a State Government post. This permitted referral of several items on an individual basis for recommendations to KMA during the past year. The Committee as a whole did not meet during the Associational year.

I wish to express my appreciation to the members of the Committee for their individual contribution and assistance.

Frank M. Gaines, Jr., M.D., Chairman

Recommendations, Reference Committee No. 5

Reference Committee No. 5 reviewed the Report of the Committee on Governmental Medical Services and recommends it be accepted.

Mr. Speaker, I move the adoption of this section of the report.

(Motion was seconded and carried.)

Report of the Technical Advisory Committee on Physician Services (Title XIX)

The five-member, KMA-appointed Technical Advisory Committee on Physician Services (Title XIX) is a quasi-governmental body called for by Kentucky statutes. It is one of several provider groups "established for the purpose of acting in an advisory capacity to the Advisory Council for Medical Assistance."

This Committee met on four occasions and had excellent attendance. Three of the meetings were held prior to the Advisory Council meetings, which were

also attended by this Committee's members. One meeting was held with the Technical Advisory Committee on Nursing Services and the Technical Advisory Committee on Nursing Home Services.

During this Associational year the Title XIX Program in Kentucky underwent administrative changes brought about by the Governor's reorganization plan, although no basic changes in philosophy or direction have evolved.

A comprehensive family planning program, mandated by the Federal Government, was implemented on January 1, 1974.

The program for the aged, blind and disabled became federalized on January 1, 1974, in terms of financial assistance through the Social Security Income Program. These categories were covered under Title XVI with state and federal matching funds. It has been estimated that with this program an additional 60,000 people will be added under Title XIX.

Physicians have continued to subsidize the Medicaid Program through payment for outpatient services based on 1968 profiles and either token payment or no payment for inpatient services. Efforts are being continued by this Committee, the Advisory Council for Medical Assistance and by KMA Officers who have met with State officials to correct these inequities.

As Chairman, I wish to thank the dedicated members of this Committee who have served so diligently and the staff members of the Kentucky Medical Assistance Program for their assistance.

William T. Watkins, M.D., Chairman

Recommendations, Reference Committee No. 5

Reference Committee No. 5 reviewed the Report of the Technical Advisory Committee on Physician Services (Title XIX) and recommends it be accepted.

Mr. Speaker, I move the adoption of this section of the report.

(Motion was seconded and carried.)

Report of the President

TOPIC XI. Dealing with Medicaid Only

Medicaid is another program with which KMA officers and officials have wrestled for a number of years and we have enjoyed very few improvements in the program. As I have travelled the state this year, I have found widespread discontent with the Medicaid program. I wish to assure you that we have exerted every effort this year to secure changes in the program which would make it a more reasonable and just program, not only for our members, but for the recipients of the Medicaid Program. At the time of this writing, these efforts are continuing and I shall present to you a final report on Medicaid as a supplemental report at the time of the House of Delegates meeting.

(The supplement begins with the next paragraph.)

One of my priorities this year has been the improvement of the Medicaid Program. Many meetings have been held and little or no progress was made

until recently. I am extremely pleased to be able to report to you that recent meetings with Governor Ford have resulted in an addition of approximately 8 million dollars to be allocated for the payment of physician fees under the Medicaid Program and that for the first time in history (although this has always been KMA's Official Policy) conversion to Usual, Customary and Reasonable Fee Schedule has been accomplished. In addition to that, profiles for outpatient services are currently being updated and, in fact, may well be completed by the time of this meeting. The program will now pay 60-62% of the Usual, Customary, and Reasonable fees based on Medicare's 75th Percentile for in-patient services and the fee schedule for obstetrical and pediatric services (which, of course, are not included under the Medicare Program) are currently being updated. A commitment has also been secured to further recommend updating the schedule to full payment of Usual, Customary and Reasonable fees for in-patient services equal to the Medicare Schedule and periodic updating of profiles for out-patient services. With this addition of funds, the total allocation for physician fees will be increased from approximately 12 million dollars to approximately 20 million dollars per year.

Recommendations, Reference Committee No. 5

Reference Committee No. 5 reviewed the Report of the President, Topic XI, dealing with Medicaid, and recommends it be accepted.

The Committee recognizes the improvements that are promised in the Medicaid Program. The Committee wishes to express its appreciation to Doctor Rainey and the Board of Trustees for their work in this area.

Mr. Speaker, I move the adoption of this section of the report.

Resolution X

KMA Board of Trustees

WHEREAS, the Medicaid Program in Kentucky has, since its inception, been fraught with problems for the physicians of Kentucky, and

WHEREAS, Physician Profiles have never been updated to bring them into line with normal charges or even with Medicare and other government medical programs in which physicians are urged to participate, and

WHEREAS, during the past Associational year one of the chief goals of the President and Board of Trustees of KMA has been to bring about improvements in the Medicaid Program in Kentucky, and

WHEREAS, in pursuing this worthwhile goal, untold hours of time and much effort have been expended in meeting with and corresponding with the Governor of the Commonwealth and many other involved state officials, and

WHEREAS, many suggestions have been made by KMA as to the proper manner for the program to be improved such as adherence to the Usual, Customary and Reasonable method of reimbursement to which KMA has continued to address itself, and

WHEREAS, the Governor of the Commonwealth has, in fact, shown interest in our concerns by taking action to improve the method of payment and amount of state funds available to the Medicaid Program (copy of letter attached), now therefore, be it

RESOLVED, that the Board of Trustees of the Kentucky Medical Association does hereby urge Kentucky physicians to continue to participate in the Medicaid Program and the Board of Trustees will continue to pursue the goal of attaining a full reimbursement UCR Program within the structure of Medicaid.

Letter from the Governor

Gentlemen:

I appreciate your recent letter regarding the reaction of the KMA Board of Trustees to the improvements currently being made in payments to physicians for services provided under the Kentucky Medical Assistance Program.

I fully realize the leadership role Kentucky physicians have assumed in the development of this program and readily acknowledge that millions of dollars of free services have been provided recipients of this program. It would have been impossible for the program to have expanded to the scope and range of services currently offered had not the physicians of Kentucky continually subsidized it during the developmental period. I also realize that practically nothing has been done since 1968 to adjust physicians' fees even though we have been in a continuing period of inflation.

I believe, however, that the actions I have taken to provide additional funding for physicians' fees represents a significant step toward correcting this injustice.

First, funds were made available to update payments to physicians for out-of-hospital services. This represents the first improvement in this element of the program in over six years. The increased payments will be reflected in claims processed during the latter part of this month. The updated fees will be based on charges reported by physicians during the period January 1, 1973, to January 1, 1974.

Secondly, the program is adopting usual, customary and reasonable charges as the basis of payment for physicians' services to hospitalized patients. I know that your association has since the inception of the program, consistently urged the adoption of this principle of payment.

I have provided sufficient funds to implement this method of payment at a level approximately 60-62 percent of the usual, customary and reasonable fees as paid by Medicare. This increased level of payment will be effective prior to January 1, 1975, and will be based on fees reported by physicians during the period January 1, 1973, to January 1, 1974. I have further instructed the program staff to routinely include sufficient funds in future budget requests to allow for annual updating of physician fees for out-of-hospital services. In addition, we would expect to provide for annual increases in in-patient fees until the program is paying full usual, customary and reasonable charges as established by Medicare.

I know that some physicians in this program feel that the amount allocated is "too little too late". I hope that they understand that the direction we have taken will ultimately meet the objectives they feel should have existed from the beginning. State resources are limited and the amount that can be allocated for this program must be weighed against their needs. Against that background I feel that I allocated as large an amount as I could. The allocation will increase payments to physicians by over \$8 million annually. It means an increase in expenditures for physicians' services from approximately \$12 million, included in the Executive Budget, to over \$20 million. Together with the updated profiles, I believe it is a giant step in meeting your expectations. I am firmly convinced that it represents significant improvements.

Sincerely
Wendell Ford

Resolution Z

Henderson County Medical Society

WHEREAS, the Kentucky Medicaid Program since its inception has never upgraded fees paid to physicians in this state, in spite of constant inflation, and

WHEREAS, the Program has further failed to make payments to the physicians of this state as assured by the Program, and

WHEREAS, in those cases in which payment has been made, the time lapse between rendering of services and payment of the claims have been totally ridiculous, and

WHEREAS, fees paid quasi-governmental agencies for medical services rendered by paramedical personnel in many cases exceed those payments allowed to physicians rendering the same services, and

WHEREAS, recipients under the program have been informed that their *cards* entitle them to total medical care, when the employees of the Medicaid Program know this to be completely untrue, and

WHEREAS, no one in the Department for Human Resources will make a positive statement to a private physician in regard to the problems involving the program, and

WHEREAS, patients denied benefits of the program are at times led to believe that the reaction is due to the private physician, now therefore be it

RESOLVED, the Kentucky State Medical Association go on record in total opposition to this program, and as a body so inform the Governor of Kentucky, the Department for Human Resources, and the appropriate news media of this action.

Recommendations, Reference Committee No. 5

Reference Committee No. 5 reviewed Resolution X—Medicaid, introduced by the KMA board of Trustees, and Resolution Z—Medicaid, introduced by the Henderson County Medical Society.

There was considerable discussion involving Mr. Laurel True, Secretary for Human Resources, and Mr. James Rogers of the Medicaid Program. Mr. True outlined the projected program, which would update the payment mechanism to include complete usual and customary, within the Medicare limitations,

over the next two legislative sessions. He promised that profiles would be updated on an annual basis.

Reference Committee No. 5 recommends that Resolution Z not be accepted and that Resolution X be approved with the addition of the following between the second and third WHEREAS's:

"WHEREAS, recipients under the program have been informed that their cards entitle them to total medical care, when the employees of the Medicaid Program know this to be completely untrue, and."

The Reference Committee feels it should be emphasized to all members that they should continue to submit their usual and customary fees for any service regardless of the amount of payment received.

Mr. Speaker, I move the adoption and implementation of this section of the report.

(Motion was seconded and carried.)

Report of the President

TOPIC XVI Dealing with Mental Health Programs in Kentucky Only

In September, 1972, this House directed that an ad hoc committee be formed to monitor the community mental health centers in Kentucky and to report back to our next House of Delegates meeting in September, 1973. That committee reported to the 1973 House of Delegates, and in essence, reported that they had not received cooperation from the mental health people and had been unable to secure information to present to our House of Delegates. The 1973 House of Delegates directed that the ad hoc committee be continued and that efforts to monitor the community health center should continue. In view of the difficulties encountered in the past and the reiterated interest expressed by this House, I have made every effort to see that this committee succeeded this year. An editorial written by the undersigned in the July issue of the *KMA Journal* expresses my personal feeling about the community mental health centers and I shall not consume this space and repeat those observations here since copies are available if the committee members so desire. I have reviewed the report of the ad hoc committee on mental health centers and feel it is a good report. I wish to draw particular attention to pages 5 and 6 of the report which raises the questions and/or makes the following statements in part:

1. Have we exchanged one caretaking system for another with benefits going to the providers rather than the intended recipients?
2. Have we established another large bureaucracy which becomes self-perpetuating, ever-expanding and maintained by its being the only resource available more than its being responsive to people's needs?
3. Our committee concludes there is cause for the most serious concern regarding the philosophy, the operation and the ultimate usefulness of the mental health centers in Kentucky.

According to information provided the committee on mental health centers and mental retardation, the

approach to assisting emotionally disturbed individuals has changed entirely from that at the beginning. Sufficient funds are available to expand the centers in any direction even remotely akin to mental health. The emphasis is shifting from providing help to growing larger. The influence of psychiatry has diminished to the vanishing point as lay administrators endeavor to deal with problems which they are inadequately prepared to handle.

4. Psychiatric therapy is poor at best and probably dangerous when done without constant self-evaluation by the providers.

I certainly share grave concern about the community mental health centers and I seriously question the quality of care being provided. Although I feel it might well be beneficial to continue the ad hoc committee as that committee recommends, I must agree that the operation of this statewide system of community mental health centers is so vastly large and complex and generally so uncooperative in providing needed statistics and information, that it renders our committee almost unproductive. From my experience as a member of the Regional Comprehensive Health Planning Council and our problems with the community mental health center, I can assure you that it would take full time for many weeks for our committee to extract and digest the information needed from just one center alone to say nothing of the state-wide system. I regret that I do not have a satisfactory solution to offer at this time. Suffice it to say that I personally feel the system should have wide exposure and close scrutiny in order to assure the people of Kentucky of quality care and more efficient expenditure of funds.

In addition to community mental health centers, there is room for concern about state mental hospitals as well. I recognize that Kentucky has a reputation at the national level of having a "model" mental health system, however, this may have resulted from the paper system rather than a functioning, efficient system of quality care. Recently, the *Courier-Journal* called attention to the fact that unlicensed M.D.'s were working in mental hospitals. This situation was brought to my attention several weeks before and I made an impromptu visit to Western State Hospital with the following findings:

- a) Over 400 inpatients were in the hospital that day
- b) Only 13 physicians were on the staff and all of those 13 physicians were foreign medical graduates
- c) Two of the 13 did only administrative work, and did not treat patients at all
- d) The Chief-of-Staff escorted me courteously through the hospital and assured me that all physicians there were licensed.
- e) He further revealed that only three of the physicians had any psychiatric residency training at all (although the others were providing psychiatric care to the inpatients)

In addition to this use of foreign medical graduates, it has now become apparent that some of the community mental health centers are exerting efforts to establish and operate HMO's. There is some feeling

that such HMO's, if ever operational, would likely be staffed by foreign medical graduates, a situation which again, in my opinion would decrease the quality of care. Therefore, I would suggest an ad hoc committee to study the situation in Kentucky relative to the overall situation with foreign medical graduates and report back to our Board of Trustees and/or House of Delegates.

I have recently written to the Attorney General requesting an opinion as to whether or not Comprehensive Health Planning Councils have jurisdiction over community mental health centers and/or programs or whether their authority is restricted to "review and comment" and whether or not Comprehensive Health Planning has jurisdiction over only new programs or whether jurisdiction would extend to a continuation and/or expansion of already existing programs. Although I do not have a written opinion at the time of this report, I have been advised by phone conversation from the office of the Attorney General that the ruling will be that Comprehensive Health Planning Councils do, in fact, have jurisdiction over community mental health programs and that they do, in fact, have approval or disapproval authority.

Recommendations, Reference Committee No. 5

Reference Committee No. 5 reviewed the Report of the President, Topic XVI, dealing with Mental Health Programs in Kentucky, and its supplement.

There was considerable discussion with numerous participants.

Reference Committee No. 5 recommends that this topic from the President's Report be accepted.

Mr. Speaker, I move the adoption of this section of the report.

(Motion was seconded and carried.)

Report of the Board of Trustees

Portion Dealing with the Report of the Ad Hoc Committee on Mental Health-Mental Retardation

This year marks the second year of work for this Committee. The function of this Ad Hoc Committee is to monitor the mental health centers in the state. This seems like a small assignment, very precise in its limitations and the centers are certainly manifest to anyone who wants to look.

However, this proved to be deceptive and we would like to appraise readers of our report of some of the difficulties encountered. In the first place, the concept of delivering mental health services to the whole community entails a vast governmental program without definable boundaries. Secondly, although applying an old idea, many of the personnel are inexperienced and adapting to entirely new challenges. This has called forth much comment and criticism, some of which is justified but much unjustified. Thirdly, there has been poor communication between staffs at the centers and the medical profession; in fact, there has been obvious antagonism oftentimes. The centers do not follow the "medical model" with patients and, other than allow some psychiatric advice-giving and consultation, adjure any

other comparison to medical treatment. Thus, any inquiries as to cost per patient contact, measurement of results, efficacy of varied therapeutic approaches, etc., have gone unanswered. Lastly, to direct a small group of observers to give a meaningful report on a giant project is a formidable task, perhaps an impossible one, since we know of no agency capable of doing a satisfactory job.

Our approach has been to contact staff members in the mental health centers, some of high standing and with years of experience. We have interviewed many doctors in the state and some from other states. We have read whatever pertinent articles we could obtain and discussed all of these data during our two committee meetings in Louisville during the year. We then condensed this into the brief report herewith submitted. We are taking the liberty of including an historical sketch to provide background information.

Historical Survey

The application of mental health principles to an entire community is an old idea. Adolf Meyer, for one, postulated the practicality of this approach 50 years ago.¹ Little impetus was given such ideas until the 1940's when the high rate of rejects for military service due to psychiatric reasons (12% of all draftees) created widespread concern. Individuals with relatives requiring psychiatric care were enlightened by mental health groups and became less willing to tolerate emotional problems as inevitable, less willing to accept abstract albeit fascinating theories of mental illness, or to accept ineffective traditional treatment approaches. In fact, the public clamored for psychiatric information and great interest and fascination with all things psychiatric developed. Some individuals, even professionals, "oversold" this new science to where people expected miracles. Even if funding were available to provide a sufficient supply, we must be aware of the fact that the very concept of mental illness continues to be questioned² and all therapy, even psychotherapy, is suspect and dependent in quality on the individual rendering this care.

In search of more effective treatment, attention turned to social factors. State hospitals, long seen as warehouses of defective individuals, were now regarded as totally undesirable and tranquilizers have emptied these institutions. Now many of these self-same patients have "disappeared" into urban slums and the long term deleterious effects of these drugs are under investigation. Thus dependency has been transferred from huge hospitals and attendants there onto drugs.

Despite these questions about their services, available psychiatrists met much public acceptance and attention. By experience with professionals people found improved care. Psychiatrists migrated after the patients from the hospitals into the private practice sector. However, they were in short supply and quite expensive for long term care.

The Federal Government tried to increase the number of psychiatrists by funding doctors to take training. This not only depleted the number of doctors in other fields but made psychiatrists available more to the moneyed (or those with health insurance) than to the socially and economically deprived whose

needs were actually much greater. Mental health centers were proposed to provide varied services to an entire population segment. These centers were to be developed with funds from the Federal Government initially but would be progressively self-supporting through welfare programs, health insurance and fee-for-service charges. The health centers were put under the control of people of the community served and required to offer inpatient treatment, outpatient treatment, partial hospitalization, emergency services 24 hours daily and consultation and education to individual and group leaders of the community. The addition of diagnostic and rehabilitation facilities, clinics for pre-care and follow-up care, alcoholics and drug addicts into one unified facility forms the comprehensive health center which is the goal of community psychiatry.

The Centers Today

Hopes soared when the concept of the mental health centers was implemented in 1963. Ideally this provides the benefits of mental health care to people of all levels of society. It would extend beyond the medical model to encompass social measures, vast in number, which bear on a person's mental well being. Psychiatrists could extend their influence manifold through the utilization of workers trained in some aspect of the field. While it is still too early to judge progress toward these goals, there is evidence of established important trends.

By and large, it is a rare doctor in private practice who endorses the work of the centers as being good. They certainly rate them as being superior to the void that existed before the centers' establishment. They resent their patients receiving no traditional psychiatric care *by a psychiatrist* although no claim had ever been made that psychiatrists would render all the care. However, the doctors feel that psychiatrists in these centers rarely spend much time with patients, that they are in the organization more to prescribe medicines than to set the standards or patterns of practice. Accustomed to receiving reports back from specialists, these physicians resent the paucity of reports and their losing contact with the referred patients.

These same doctors we interviewed see problems beyond the surface. They question the cost of this enormous operation. In some communities, the hired now outnumber the highway department workers. The leading citizens who set policy are aware of strong political influences being wielded, especially in hiring practices. Some of those hired are chosen on the basis that they have overcome the problem which they will strive to treat in others. This gives some centers an appearance in which the staff cannot be differentiated from the clients and some facilities take on the appearance of a public meeting place for transients except that these transients become chronic inhabitants.

This observation leads to further questions: Have we exchanged one caretaking system for another with benefits going to the providers rather than the intended recipients? Have we established another large bureaucracy which becomes self-perpetuating, ever expanding and maintained by its being the only re-

source available more than its being responsive to peoples' needs? One need only look at other large governmental operations (e.g., the Veterans Administration, university funding programs, welfare programs, etc.) to see how size and bureaucratic proliferation affect responsiveness.

Our Committee concludes that there is cause for the most serious concern regarding the philosophy, the operation and the ultimate usefulness of the mental health centers in Kentucky. According to information provided the Committee on Mental Health Centers and Mental Retardation the approach to assisting emotionally disturbed individuals has changed entirely from that at the beginning. Sufficient funds are available to expand the centers in any direction even remotely akin to mental health. The emphasis is shifting from providing help to growing larger. The influence of psychiatrists has diminished to the vanishing point as lay administrators endeavor to deal with problems they are inadequately prepared to handle.

It is always easy to find fault and cry doom. Our hope is that the assets of these programs can be retained. We know of some excellent units operating within this network and some first class workers who have a great deal to offer. The questions of improving the availability of good care, of attracting good workers, of maintaining responsiveness to a changing society are concerns to us all if these are truly *community* centers. Matters are not improved by a lack of sharing or cooperation between the centers and organized medical groups.

Ultimately the purpose of any psychiatric care is to free the individual of maladaptive elements of his functioning or personality and establish independence and self-esteem. Psychiatric therapy is poor at best and probably dangerous when done without constant self-evaluation by the providers. So far the mental health centers have shown no tendency toward an open and frank attitude at least so far as the medical profession is concerned.

This report raises more questions than it answers. It is our hope that all concerned individuals will begin to reflect on these matters and correspond with this Committee as to their observations and opinions. We recommend to the House of Delegates of the Kentucky Medical Association that this Committee be continued.

Homer B. Martin, M.D., Chairman

References

1. Freedman, A., and Kaplan, H.: *Comprehensive Textbook of Psychiatry*, Baltimore, The Williams and Wilkins Company, 1967.
2. Arthur, Ransom: *Social Psychiatry: An Overview*, *Am. J. Psychiatry*. 130:8:841-849, August 1973.

Recommendations, Reference Committee No. 5

Reference Committee No. 5 reviewed the portion of the Report of the Chairman, Board of Trustees, dealing with the Ad Hoc Committee on Mental Health-Mental Retardation, and recommends that this be approved as written.

The Reference Committee further recommends that this report be sent to all county medical societies in

Kentucky with the request that the societies distribute it to each board member of the comprehensive care centers in their areas.

Mr. Speaker, I move the adoption and implementation of this section of the report.

(Motion was seconded and carried.)

Report of the President

TOPIC XVII Dealing with Bureau for Health Services Only

As you know, under the reorganization plan, the State Board of Health was abolished and apparently its functions were transferred to the Secretary of the Department for Human Resources. Additional opinion is now being sought from the office of the Attorney General and such opinions will be made available to you in the form of a supplement to this report if they are in fact available by our September meeting. During the recent session of the General Assembly, I was assured that local Boards of Health would continue to function as they have in the past and that no county health department would be forced to merge into a regional health department system unless that particular local health department so wished. It is becoming clear however, that "encouragement" to regionalize is coming about through suggestions that the state will not provide operational funds for any health department except regional health departments.

Although there appears to be several advantages to regional health departments over local health departments, I am somewhat apprehensive about the long range future of our public health system in Kentucky and just where the control may end up. Mental health people, particularly community mental health centers, have reportedly demonstrated an unusual interest in securing control of health departments and/or health department programs. I personally feel this change, if indeed it should ever occur, would be a grave mistake for the people of Kentucky. I find that the concerns relative to public health in Kentucky are shared by physicians across the state. (The supplement begins with the following paragraph.)

Although I do not have a written report from the Attorney General at the time of this report relative to the authority of the Secretary for the Department of Human Resources under the reorganization plan implemented, I am informed by telephone from the office of the Attorney General that all those responsibilities and authorities previously vested in the State Board of Health, including the approval or disapproval of budgets submitted by local Boards of Health and the appointment of members to local boards of health are now, in fact, vested in the Secretary of the Department for Human Resources and/or his representative.

Recommendations, Reference Committee No. 5

Reference Committee No. 5 reviewed the Report of the President, Topic XVII (Bureau for Health Services) and recommends it be accepted.

We appreciate Doctor Rainey's concern in the

establishment of regional health department systems. From Mr. Laurel True we understand it is already being implemented. Therefore, it is felt that the Kentucky Medical Association should offer the services of an advisory committee immediately.

Mr. Speaker, I move the adoption and implementation of this section of the report.

(Motion was seconded and carried.)

Report of the President

Topic XVIII Dealing with Chiropractic Services Only

I was recently informed that Metropolitan Life Insurance Company had employed chiropractors for the purpose of interpreting x-rays. I inquired by telephone and was told by an officer of Metropolitan Life Insurance Company that this was true. Still not being satisfied, I wrote the Vice-President and Chief Medical Director of Metropolitan Life Insurance Company asking him for confirmation of this arrangement and, if in fact it was true, the reasoning behind such a policy. I have received a response from Metropolitan, a copy of which will be made available to any delegate who may desire it. Suffice it to say that the response confirmed the fact that Metropolitan Life Insurance Company is, in fact, utilizing the services of chiropractors for roentgenological interpretations and the letter strongly insinuates that the interpretations of chiropractors are, in fact, being accepted over the advice and interpretations of Radiologists. A report has been made to your Board of Trustees and the Board is presenting to you Resolution Q, which I would strongly endorse.

Recommendations, Reference Committee No. 5

Reference Committee No. 5 reviewed the Report of the President, Topic XVIII (Chiropractic Services), and recommends it be approved.

Mr. Speaker, I move the adoption of this section of the report.

(Motion was seconded and carried.)

Resolution Q

KMA Board of Trustees

WHEREAS, Public Law 92-603 authorizes payment to chiropractors for "manual manipulation of the spine to correct a subluxation (demonstrated by x-ray to exist) which has resulted in a neuromusculoskeletal condition," and

WHEREAS, the Regulations recently published (August 9, 1974) require "malpositioning of a vertebra anatomically demonstrable on an x-ray film and that its objectivity should be such that anyone trained and experienced in the reading of x-rays could identify it," and

WHEREAS, The Metropolitan Insurance Company has retained chiropractors in their review mechanism; and

WHEREAS, this action (though legal) may jeopardize the fine relationship of the physicians of Kentucky and the Metropolitan, therefore be it

RESOLVED, that the Kentucky Medical Association, by its Board of Trustees and executive staff, petition the Metropolitan Insurance Company to reconsider the use of chiropractors in the claims review system and institute scientific, accepted systems to reasonably process legitimate claims and that Metropolitan be notified that its actions are jeopardizing the continuing cooperation of physicians with Metropolitan in *all* aspects including management of Part B of the Medicare law, and be it further

RESOLVED, that if negotiations prove futile, the Board be empowered to inform the membership and advise Kentucky physicians of appropriate actions regarding Metropolitan Insurance Company, and be it further

RESOLVED, that all KMA members be informed of the unalterable opposition of the House of Delegates to the inclusion of chiropractors for the x-ray determination of malposition.

Recommendations, Reference Committee No. 5

Reference Committee No. 5 reviewed Resolution Q, Chiropractic Involvement with Medicare, introduced by the KMA Board of Trustees.

Reference Committee No. 5 recommends that Resolution Q be approved with the deletion of the following phrase in the first RESOLVED: "in *all* aspects, including management of Part B of the Medicare law," which would then make the first RESOLVED read as quoted below.

"RESOLVED, that the Kentucky Medical Association, by its Board of Trustees and executive staff, petition the Metropolitan Insurance Company to reconsider the use of chiropractors in the claims review system and institute scientific, accepted systems to reasonably process legitimate claims and that Metropolitan be notified that its actions are jeopardizing the continuing cooperation of physicians with Metropolitan."

Mr. Speaker, I move the adoption and implementation of this section of the report.

(Motion was seconded and carried.)

Resolution R

Pennyrile Medical Society, Inc.

WHEREAS, for a number of years the House of Delegates of the Kentucky Medical Association has voiced the desire to see the Commonwealth of Kentucky treated as a single payment area, and

WHEREAS, under the UCR concept of payments the current boundaries are very artificial, and

WHEREAS, no longer is it true that the high per capita income or cost of living or cost of supplies is found only in metropolitan areas, and

WHEREAS, medicare payments *at present* are based supposedly on the 75th percentile of UCR fees submitted for 1973 to those who have established profiles and on the 50th percentile for young physicians entering practice for the first time, and

WHEREAS, medicare purports to update physicians' profiles regarding the fees submitted, what actually seems to be done is a token increase based on fees allowed—so these are not fees following a UCR concept, and

WHEREAS, fees in dispute may be referred to local peer review committees or even the state peer review committee, the medicare organization makes it clear they may be guided by the outcome of such hearings but they are under no obligation to abide by the outcome of such hearings, and

WHEREAS, if a young physician enters practice with an established group his fees remain those of the group and a number of such physicians entering practice in Kentucky who have already been in practice in adjacent or nearby states find that their "established Kentucky profile" is often only half as much as their previous profile, and

WHEREAS, physicians coming into the state who have already established profiles in other states may find they too must establish a "Kentucky profile" and are paid at the 50th percentile till such a profile is "established", and

WHEREAS, over and over we hear the problem of maldistribution of physicians discussed and the current medicare fee system promotes this problem, now therefore be it

RESOLVED, the 1974 Kentucky Medical Association House of Delegates instruct the Board of Trustees to resolve the following points with medicare:

1) For payment purposes the Commonwealth of Kentucky should be considered one payment area.

2) The 1974 KMA House of Delegates reaffirms its support of the UCR concept.

3) Profiles for medicare payment purposes should be updated at least annually based on physicians' charges and not medicare allowances and not two years behind as is the current policy.

4) Disputed fees should be turned over to Peer Review (KPRO) for arbitration that is binding on both parties.

5) Physicians with established practices in other states should be allowed to transfer their profile from one state medicare office to another, and this should be publicized to physicians.

6) Younger physicians entering practice should not be faced with the current inequitable payment for services for this is the same as saying his services aren't as good as those of older colleagues.

7) It seems inconceivable that the average or median UCR payments should vary as much as they seemingly do from state to state and information regarding this should be obtained.

8) If the above points are not resolved in a manner satisfactory to the Board of Trustees (and based on past experience with previously passed resolutions, some of these points may not be resolvable by the Board of Trustees) within one year then the public should be informed by a statement of fact to be displayed in physicians' offices of the medicare program's misleading and often degrading inferences with regard to the disallowance of charges and note that this disparity is even greater for the young physician first entering practice.

(Comment: such a communication might be printed on a sheet of the KMA Communicator suitable for display in a physician's office and would require very little or no additional cash outlay.)

and be it further

RESOLVED, the Board of Trustees report back to the 1975 House of Delegates as to their success or failure on a point by point basis for further deliberations as may be necessary.

Recommendations, Reference Committee No. 5

Reference Committee No. 5 reviewed Resolution R, Medicare and Medicare Payments, introduced by the Pennyriple Medical Society, Inc., and recommends it be approved.

Mr. Speaker, I move the adoption and implementation of this section of the report.

(Motion was seconded and carried.)

Resolution W

Campbell-Kenton County Medical Society

WHEREAS, current requirements for transfer of patients from acute to intermediate and extended care facilities and maintenance of records in such facilities are burdensome and wasteful of professional time, thereby detrimental to the highest quality medical care for patients, now therefore be it

RESOLVED, that the Board of Trustees of the Kentucky Medical Association be requested to convene a meeting of representatives of the Kentucky Medical Association, the Kentucky Nurses Association, the Kentucky Association of Health Care Facilities and representatives of state and federal agencies for the purpose of reviewing and greatly simplifying the present requirements governing extended care facilities.

Recommendations, Reference Committee No. 5

Reference Committee No. 5 reviewed Resolution W, Requirements of Intermediate and Extended Care Facilities, introduced by the Campbell-Kenton County Medical Society, and recommends it be approved.

Mr. Speaker, I move the adoption and implementation of this section of the report.

(Motion was seconded and carried.)

Recommendations, Reference Committee No. 5

Mr. Speaker, I move the adoption of the Report of Reference Committee No. 5 as a whole.

(Motion was seconded and carried.)

Recommendations, Reference Committee No. 5

Mr. Speaker, I would like to thank each member of this Committee for his help in reviewing these reports and writing the Reference Committee report and Mrs. Doris Crume for her assistance in preparing this report.

(Motion was seconded and carried.)

REFERENCE COMMITTEE NO. 5

N. H. Talley, M.D., Princeton, Chairman
Danny M. Clark, M.D., Somerset
Emanuel H. Rader, M.D., Pineville
R. Parnell Rollings, M.D., Louisville
William R. Yates, M.D., Hebron

REFERENCE COMMITTEE NO. 6

Wally O. Montgomery, M.D., Paducah,
Chairman

Reference Committee No. 6 considered the following reports and resolutions:

11. Report of the KMA Judicial Council
 13. Report of the Rural Kentucky Medical Scholarship Fund
 25. Report of the Committee to Study the Constitution and Bylaws
 26. Report of the McDowell House Board of Managers
 38. Report of the KMA-KNA Joint Practice Committee, *except* the portion beginning with the last paragraph on page 38.2 through the second paragraph on page 38.3, dealing with continuing education, which is referred to Reference Committee No. 2
 39. Report of the Physician-Attorney Liaison Committee
 40. Report of the Ad Hoc Committee to Study the External Structure of KMA
1. Report of the President; the following topics *only*
 - Topic IIIb (The Election Process for President-Elect)—pages 1.3 & 1.4
 - Topic IV (The Office of Vice President)—pages 1.4 and 1.5
 - Topic V (Participation of Medical Students, Interns and Residents in Organized Medicine)—pages 1.5 and 1.6
 - Topic VII (AMA, KMA and County Membership—Unified Membership)—pages 1.7 and 1.8

Resolution C—Specialty Representation in the KMA House of Delegates (Hardin-Larue County Medical Society)

Resolution E—Method of Selecting Nominating Committee (McCracken County Medical Society)

Resolution I—Malpractice Suits (Campbell-Kenton County Medical Society)

Resolution P—Lyon County Joining the Pennyriple Medical Society (Pennyriple Medical Society, Inc. and Lyon County Medical Society)

Resolution S—Clarification of the Selection of Delegates and Alternate Delegates to the American Medical Association (Pennyriple Medical Society, Inc.)

Report of the KMA Judicial Council

During the past year since our last report, the Judicial Council met on the following dates: September 19, 1973; October 31, 1973; December 12, 1973; February 20, 1974; April 17, 1974; June 20, 1974, and August 21, 1974 and considered complaints from patients, physicians, and third parties relating to treatment received, fees charged, billing

procedures, and other aspects of medical practices. These items totaled 102, many of which were continued from month to month.

Following are abstracts of the items that are of general interest to the profession or of a personal interest:

1) In answer to a complaint from a podiatrist that an attending physician did not make available to him medical history of a patient whom he was treating, the Council cited the *AMA Judicial Council Opinions and Reports* and stated:

"That the practice of podiatry is ancillary to the medical practice and that pertinent medical records should be made available in an appropriate situation."

2) Appeal of Richard Carter, M.D., from the decision of the Fayette County Medical Society: The Council, after a hearing and a review of extensive legal arguments, made the determination that Doctor Carter was not responsible for advertising being done by the Hunter Foundation; however, the Judicial Council pointed out that it did not agree that advertising by an HMO is necessary for its existence or success and that such advertising by an HMO does not reflect credit on the medical profession.

3) The Council received information concerning the operation of abortion clinics in several areas of the state and proceeded through local societies to investigate whether or not the clinics were in operation and if so, whether or not the KMA guidelines were being met. This investigation is an on-going process and excellent cooperation has been received from local physicians in monitoring these clinics. Thus far, the Council's investigation has disclosed that the KMA guidelines are being met, but in several instances solicitation methods have been open to question.

4) The Council has received information and complaints concerning the operation of mobile pulmonary testing laboratories operating in Kentucky and is attempting to make on-the-scene investigations of these testing labs to determine if proper supervision and medical procedures are being followed.

5) Upon inquiry from a medical insurance carrier, the Council, in accordance with Section Ten of the *Principles of Medical Ethics*, and decisions of the AMA Judicial Council, stated its opinion that:

"Where a reasonable request for medical information is made to a physician by a recognized insurance carrier, with the patient's permission, to enable a fair determination to be made on a patient's claim for medical insurance benefits, it would be unethical for a physician to refuse to provide pertinent and relevant information without some just cause."

6) The Council received several inquiries concerning a proper announcement of the opening of a physician's office, and has reiterated its view that under Section Five of the Canons of Medical Ethics, a printed announcement should not be sent indiscriminately to all persons in the community nor should commercial mailing lists be utilized, but rather

its distribution should be limited to colleagues, personal friends not in the medical profession, and persons in allied fields with whom the physician may be associated.

The form of the announcement should be kept simple, announce the facts of the opening of an office, and the type of practice to be conducted. Any embellishment into the details of the practice or the skills or training of the physician are not in good taste. The Judicial Council has no objection to consulting with any physician opening a new office and reviewing his planned announcement with him.

The Council has also received other questions of ethics concerning individual situations including activities of nurse practitioners, financial interest in drugstores by physicians, the handling of delinquent accounts, consent requirements for sterilization operations, and complaints relative to doctor-patient relationships and the compulsive statements and actions of physicians to patients in the course of their practice.

The Council has continued its policy of increasing use and dependence on the local district trustees for their assistance in investigating complaints received by the Council and undertaking to solve complaints involving personality conflicts on a local level. The Council wishes to note that the local trustees' assistance has generally proven productive and expeditious.

The Council, with the assistance of the KMA staff, has developed a system of receiving, categorizing, and prompt handling of complaints to assure the best possible resolution of problems as brought to the KMA and the Judicial Council.

At the close of this year the Judicial Council has pending before it twelve matters which are under continuing investigation towards an ultimate resolution.

E. C. Seeley, M.D., Chairman

Recommendations, Reference Committee No. 6

Reference Committee No. 6 considered as its first order of business the Report of the KMA Judicial Council. This was discussed at length and the only question that the Reference Committee had was that of advertising by an HMO which seems to be an unresolved problem.

Mr. Speaker, I move the adoption of this section of the report.

(Motion was seconded and carried.)

Report of the Rural Kentucky Medical Scholarship Fund

The Rural Kentucky Medical Scholarship Fund, established in 1946 for the purpose of providing a better distribution of physicians in rural Kentucky, now has 190 physicians in practice in 87 counties, with 22 practicing in critical counties and two in the Public Health Service.

There are now outstanding 270 notes to 143 borrowers, for a total in excess of \$537,850. These recipients are either in medical school, interning, or in the Armed Services.

All loans and contracts are processed at the KMA

Headquarters Office. Progress reports are secured on students in medical school, and contact is maintained with interns, recipients in the Armed Services, and past recipients in practice. The Louisville Trust Company serves as the fiscal agent for the Fund.

This year the critical county contract, the regular loan contract, and the Public Health contract were combined. Loans to \$3,500 per year are available to medical students who are residents of Kentucky and who have agreed to practice in an approved area of the state one year for each loan received. Forgiveness features are applicable to recipients who establish practice in designated critical counties or who serve in the Kentucky Public Health Service. Another major change in the contract is the inclusion of a liquidated damage clause which allows for the Fund to collect \$5,000 for damages suffered by a community for failure of a recipient to go there and practice. The contract also states that the Board looks favorably on residencies in Family Practice and to a limited degree on certain other residencies in the primary specialties. Such postgraduate training extension must be requested and approved in advance.

In addition to loans to students, the Fund has approved an Establish Practice loan of \$5,000 to physicians entering practice for the first time in an approved rural area of Kentucky. The loan bears an interest rate of two percent and permits practice in over 100 counties in Kentucky. Annual forgiveness features of \$1,000 apply to areas considered in greatest need of a physician.

The members of the Board of Trustees of the Fund, in noting the success of the program over the past 28 years, have asked me to express their particular appreciation for the interest and support of Governor Wendell H. Ford, members of the Kentucky General Assembly, and members of the Kentucky Medical Association.

G. L. Simpson, M.D., Chairman

Recommendations, Reference Committee No. 6

Reference Committee No. 6 next reviewed the Report of the Rural Kentucky Medical Scholarship Fund. The Chairman of the Fund, G. L. Simpson, M.D., was present to make comments on this report as well as to answer questions from the audience. He discussed the three new innovations of the Fund regarding the formation of mini-groups by recipients of the Fund, the established practice loan which is new this year and the liquidated damages concept of the enforcement of the contract.

Mr. Speaker, I move the adoption of this section of the report.

(Motion was seconded and carried.)

Report of the Committee to Study the Constitution and Bylaws

Your Committee to Study the Constitution and Bylaws met this year on April 25 for its annual session to implement Bylaws changes that had been proposed to the Committee and to generally update the Bylaws.

Since there are no Constitutional changes this year, our format for presentation will be to first present our recommendations and reasons for submitting any proposed changes. Secondly, we will quote the wording of the present section of the Constitution and Bylaws, and thirdly, present the proposed amendments to the Constitution and Bylaws.

Amendments to the Bylaws

Recommendation

This year, Fred C. Rainey, M.D., KMA President, was specifically mandated by the House of Delegates to make contact with the Student American Medical Association Chapters at the University of Louisville and the University of Kentucky, to initiate a closer liaison between students and organized medicine. Doctor Rainey found the student groups to be extremely interested in the operations of organized medicine but somewhat frustrated in their participation due to the fact that they are not allowed a vote in the KMA House of Delegates. As a result of this the KMA Board of Trustees has recommended that student representatives be given a vote in the House of Delegates and when appointed to committees, be allowed to be voting members of those committees.

CHAPTER I, Membership

Present Section 2 (F): Any student in an accredited medical school in Kentucky or any resident of Kentucky who is a student in any accredited medical school in the United States shall be eligible for student membership. Student members shall not have the right to vote nor hold office. They may apply directly to the state association for membership and be assigned to the county society of their choice. The membership year for student members shall run from September 1 to August 31 of each year.

Proposed Section 2 (F): Any student in an accredited medical school in Kentucky or any resident of Kentucky who is a student in any accredited medical school in the United States shall be eligible for student membership. They may apply directly to the state association for membership and be assigned to the county society of their choice. The membership year for student members shall run from September 1 to August 31 of each year. *Student members may not hold office, but may be voting members of any committee to which they are appointed. They will be represented in the House of Delegates through one voting representative elected by the Student American Medical Association Chapter at the University of Kentucky and one voting representative elected by the Student American Medical Association at the University of Louisville.*

Recommendations, Reference Committee No. 6

Reference Committee No. 6 next discussed the Report of Committee to Study the Constitution and Bylaws. The first section of this report discussed was Chapter I (Membership), Section 2 (F). There was much discussion from the floor regarding this section of student membership of KMA and of the proposed

change in the Bylaws. The Committee felt that the proposed change of the Bylaws should be altered to include this statement as the new Section 2 (F). "Any student in an accredited medical school in Kentucky or any resident of Kentucky who is a student in any accredited medical school in the United States shall be eligible for student membership. They may apply directly to the state association for membership and be assigned to the county society of their choice. The membership year for student members shall run from September 1 to August 31 of each year. *Student members may not hold office but may be voting members of any committee to which they are appointed. They will be represented in the House of Delegates through one voting representative, a student member of KMA elected by the student body at the University of Kentucky College of Medicine and one voting representative, a student member of the Kentucky Medical Association elected by the student body at the University of Louisville School of Medicine.*"

Mr. Speaker, I move the adoption and implementation of this section of the report.

The motion was seconded from the floor. On a call for discussion, the suggestion was made that the dates contained in the sentence, "The membership year for student members shall run from September 1 to August 31 of each year.", be changed to January 1 to December 31, which would cause the sentence to then read, "The membership year for student members shall run from January 1 to December 31 of each year." The recommendations of the Reference Committee were then accepted as amended.

Recommendation

The House of Delegates recently changed their policy regarding responsibility for KMA Awards. Due to the fact that the physical appearance of the KMA Award given to an outstanding layman and to an outstanding physician have been changed, it is now necessary for the recipients of those two awards to be chosen well in advance of the Annual Meeting, which is the time at which these awards are presented. For that reason, it is now more feasible for the Awards Committee to be the sole judge as to the recipient of the above mentioned awards. (This adopted policy is already in effect so this is merely a "housekeeping change").

CHAPTER III, The House of Delegates

Present Section 18: Except as provided in Chapter VI, Section 4, it shall approve all memorials and resolutions issued in the name of the Association before the same shall become effective.

Proposed Section 18: It shall approve all memorials and resolutions issued in the name of the Association before the same shall become effective, except as provided in Chapter VI, Section 4, *and except for the selection of the recipient of the Kentucky Medical Association Award (Outstanding Layman) and the Distinguished Service Award (Outstanding Physician), which selections shall be made by the KMA Awards Committee.*

Recommendations Reference Committee No. 6

Chapter III (The House of Delegates), Section 18 of the Bylaws was next discussed and it was felt that the recommendation of the Bylaws Committee should be accepted so that proposed Section 18 would read: "It shall approve all memorials and resolutions issued in the name of the Association before the same shall become effective except as provided in Chapter VI, Section 4, *and except for the selection of the recipient of the Kentucky Medical Association Award (Outstanding Layman) and Distinguished Service Award (Outstanding Physician), which selections shall be made by the KMA Awards Committee.*"

Mr. Speaker, I move the adoption and implementation of this section of the report.

(Motion was seconded and carried.)

Recommendation

It was felt that the current method by which KMA elects its officers is somewhat outmoded and many times prevents capable individuals from serving in the specific offices of President and Vice President due to the current method of not allowing candidates to seek office and the "gentlemen's agreement" of rotating various officers between three vague districts. The changing of this particular procedure would require changes in two sections of the Bylaws.

CHAPTER IV, Election of Officers and Delegates to the AMA

Present Section 1: The President Elect and the Vice President shall be elected for the term of one year, the President Elect succeeding to the presidency at the expiration of his term as the President Elect. The Vice President shall be elected from the same general area in which the President resides. Delegates to the AMA and their Alternates shall be elected for terms of two years. The Speaker of the House of Delegates, the Vice Speaker, the Secretary, and the Treasurer shall be elected for terms of three years, but no members shall be eligible for election to more than two consecutive full terms as Secretary or Treasurer. Trustees and their Alternates shall be elected for terms of three years and Trustees shall be limited to serving for not more than two consecutive full terms. The terms of the Trustees and their Alternates shall coincide and be so arranged that 1/3 of the terms expire each year, insofar as possible, provided, however, that nothing contained herein shall preclude an Alternate Trustee from serving two full terms as a Trustee. No member shall be eligible for the office of President, President Elect, Vice President, Speaker or Vice Speaker of the House of Delegates, Trustee, or Alternate Trustee who has not been an active member of the Association for at least five years.

Proposed Section 1: The President Elect and the Vice President shall be elected *from the state at large* for a term of one year, the President Elect succeeding to the presidency at the expiration of his term as President Elect. *Delete (The Vice President shall be elected from the same general area in which the President resides.)* (The rest of the paragraph remains the same).

The Bylaws change next considered by the committee refers to Chapter IV (Election of Officers and Delegates to the AMA), Section 1, the last sentence of that paragraph which now states, "No member shall be eligible for the office of President, President Elect, Vice President, Speaker or Vice Speaker of the House of Delegates, Trustee, or Alternate Trustee who has not been an active member of the Association for at least five years." The committee feels that the sentence should be changed to delete "five years" and insert "three years" requirement.

Mr. Speaker, I move the adoption and implementation of this section of the report.

(Motion was seconded and carried.)

Recommendation

Again, if the election procedures are changed, the Nominating Committee may either select a nominee for the office of President-Elect and Vice President or someone wishing to seek either office may indicate his desire to do so. Since this could conceivably mean there would be more than one individual nominated for or seeking each office, your Constitution and Bylaws Committee feels that some type of specific election procedures should be developed. Please note that there is a proposed change in Section 1 which appears in the main report having to do with the President Elect and Vice President being elected from a state at large and deleting the requirement that the Vice President be elected from the same general area in which the President resides. The changes recommended in this addendum incorporate the changes recommended previously in the preceding report *but adds guidelines for election procedures when more than one individual is up for election to a particular office.*

CHAPTER IV, Election of Officers and Delegates to the American Medical Association

Present Section 1: The President-Elect and the Vice President shall be elected for a term of one year, the President-Elect succeeding to the presidency at the expiration of his term as President-Elect. The Vice President shall be elected from the same general area in which the president resides. Delegates to the AMA and their alternates shall be elected for terms of two years. The Speaker of the House of Delegates, the Vice Speaker, the Secretary, and the Treasurer shall be elected for terms of three years, but no member shall be eligible for election to more than two consecutive full terms as Secretary or Treasurer. Trustees and their Alternates shall be elected for terms of three years and Trustees shall be limited to serving for not more than two consecutive full terms. The terms of the Trustees and their Alternates shall coincide and be so arranged that one-third of the terms expire each year, insofar as possible, provided, however, that nothing contained herein shall preclude an Alternate Trustee from serving two full terms as a Trustee. No member shall be eligible for the office of President, President-Elect, Vice President, Speaker or Vice Speaker of the House of Delegates, Trustee or Alternate Trustee

who has not been an active member of the Association for at least five years.

Proposed Section 1: The President-Elect and the Vice President shall be elected *from the state at large* for a term of one year, the President-Elect succeeding to the presidency at the expiration of his term as President-Elect. *Delete (The Vice President shall be elected from the same general area in which the President resides.) A majority vote of those attending and voting shall be required for the election of the President-Elect and the Vice President, and on any ballot where a majority is not obtained the candidate with the least votes shall be dropped and further balloting held until such time as one candidate receives a majority of the votes cast.* (The rest of the paragraph remains the same.)

Recommendations, Reference Committee No. 6

Chapter IV (Election of Officers and Delegates to the AMA), Section 1 was next considered. It was felt that the proposed Section 1 should be changed, after much discussion by members present at the meeting, and for the proposed section to read as follows: "The President-Elect and Vice-President shall be elected *from the state at large* for a term of one year, the President-Elect succeeding to the presidency at the expiration of his term as President-Elect. *Delete (The Vice President shall be elected from the same general area in which the President resides.) A majority vote of those attending and voting shall be required for the election of the President-Elect and the Vice-President and on any ballot where a majority is not obtained, the candidate with the least votes shall be dropped and further balloting held until such time as one candidate receives a majority of the votes cast.*" (The rest of the paragraph remains the same.)

Mr. Speaker, I move the adoption and implementation of this section of the report effective with the new Associational year.

(Motion was seconded and carried.)

Present Section 5: Any member known to have directly or indirectly solicited votes for, or sought any office within the gift of the Association shall be ineligible for any office for two years.

Proposed Section 5: Delete entire chapter. Section 6 would then become Section 5.

Recommendations, Reference Committee No. 6

Chapter IV (Election of Officers and Delegates to the AMA), Section 5 of the Bylaws was then considered and it was the feeling of the committee that this section should not be completely eliminated from the Bylaws. However, the committee proposes that present Section 5 be changed to read as follows: "*Any member may make known his availability for any office within the gift of the Association. However, it would be regarded as unseemly for any member to actively campaign for his own election.*"

Mr. Speaker, I move the adoption and implementation of this section of the report.

(Motion was seconded and carried.)

Recommendation

The current Bylaws state that the Nominating Committee shall meet during the Interim Meeting or at least four months prior to the Annual Meeting to nominate officers for the coming year. Since there has been a moratorium placed on the Interim Meeting it is impossible for the Nominating Committee to meet at that time. In addition, as it often happens, nominees for various offices are not received until immediately prior to the Annual Meeting. For this reason we would recommend that the requirement to meet four months prior to the Annual Meeting be removed but that the Nominating Committee be required to meet at least once during the Annual Meeting.

CHAPTER IV, Election of Officers and Delegates to the AMA

Present Section 2: During the last meeting of the regular session of the House of Delegates, the Speaker of the House of Delegates shall submit to the members of the House of Delegates a list of the names from which, by ballot, the House of Delegates shall select five members to serve as the Nominating Committee for the next year. The five names receiving the most votes shall form the Committee. The Committee shall select one of its members as Chairman at an organizational meeting held during the Interim Meeting, or at some other appropriate place designated by the Board of Trustees at least four months before the Annual Meeting. The Committee, in addition to such other meetings as it may choose to hold, shall schedule an open meeting immediately after the close of the first meeting of the House at each Annual Meeting. This open meeting shall be held in the meeting place of the House of Delegates, shall receive broad publicity, and those who have business to discuss with the Committee shall have a hearing. Before noon of the following day, the Committee shall post on a bulletin board near the entrance to the hall in which the Annual Meeting is being held, its nominations for each office to be filled, and shall formally present said nominations to the House at the time of the election. Additional nominations may be made from the floor by submitting the nominations without discussion or comment. Vacancies occurring on the Nominating Committee by virtue of death, resignation or disability, shall be filled by appointment of the Speaker.

Proposed Section 2: During the meeting of the last regular session of the House of Delegates, the Speaker of the House of Delegates shall submit to members of the House of Delegates a list of ten names from which, by ballot, the House of Delegates shall select five members to serve as the Nominating Committee for the next year. *The five names receiving the most votes shall form the Committee, and the person receiving the most votes shall be Chairman. In the event that the Chairman so elected is unable or unwilling to serve, or in the event of a tie, the Committee shall elect one of its members as Chairman. The Committee shall meet at such time and place as determined by the Committee Chairman or the Board of Trustees and shall schedule an open*

meeting immediately after the close of the first meeting of the House of Delegates at each Annual Meeting. This open meeting shall be held in the meeting place of the House of Delegates, shall receive broad publicity, and those who have business to discuss with the Committee shall have a hearing. Before noon of the following day, the Committee shall post on a bulletin board near the entrance to the hall in which the Annual Meeting is being held, its nominations for each office to be filled, and shall formally present the said nominations to the House at the time of the elections. Additional nominations may be made from the floor by submitting the nominations without discussion or comment. Vacancies occurring on the Nominating Committee by virtue of death, resignation or disability shall be filled by appointment of the Speaker.

ADDENDUM

TO THE REPORT OF THE CONSTITUTION AND BYLAWS COMMITTEE

Amendments to the Bylaws

Recommendation

In the preceding report of the Constitution and Bylaws Committee, recommendations were made which would change the election procedures currently used for the offices of President-Elect and Vice President. If those changes are accepted by the House, we feel it will be necessary to set forth additional guidelines as to the role and responsibility of the Nominating Committee. This would require a change in Chapter IV, Section 2, relating to the Nominating Committee.

CHAPTER IV, Election of Officers and Delegates to the American Medical Association

Present Section 2: During the last meeting of the regular session of the House of Delegates, the Speaker of the House of Delegates shall submit to the members of the House of Delegates a list of ten names from which, by ballot, the House of Delegates shall select five members to serve as the Nominating Committee for the next year. The five names receiving the most votes shall form the committee. The committee shall select one of its members as chairman at an organization meeting held during the Interim Meeting, or at some other appropriate place designated by the Board of Trustees at least four months before the Annual Meeting. The committee, in addition to such other meetings as it may choose to hold, shall schedule an open meeting immediately after the close of the first meeting of the House at each Annual Meeting. This open meeting shall be held in the meeting place of the House of Delegates, shall receive broad publicity, and those who have business to discuss with the committee shall have a hearing. Before noon of the following day, the committee shall post on a bulletin board near the entrance to the hall in which the Annual Meeting is being held, its nominations for each office to be filled, and shall formally present said nominations to the House at the time of the election. Additional nominations

may be made from the floor by submitting the nominations without discussion or comment. Vacancies occurring on the Nominating Committee by virtue of death, resignation, or disability, shall be filled by appointment of the Speaker.

Proposed Section 2: (a) During the meeting of the last regular session of the House of Delegates, the Speaker of the House of Delegates shall submit to members of the House of Delegates a list of ten names from which, by ballot, the House of Delegates shall select five members to serve as the Nominating Committee for the next year. The five names receiving the most votes shall form the Committee, and the person receiving the most votes shall be Chairman. In the event that the Chairman so elected is unable or unwilling to serve, or in the event of a tie, the Committee shall elect one of its members as Chairman.

(b) The Committee shall meet at such time and place as determined by the Committee Chairman or the Board of Trustees and shall schedule an open meeting immediately after the close of the first meeting of the House of Delegates at each Annual Meeting. This open meeting shall be held in the meeting place of the House of Delegates, shall receive broad publicity, and those who have business to discuss with the Committee shall have a hearing.

(c) The Nominating Committee shall verify the eligibility and willingness to serve of each candidate nominated. The Committee shall accept and post all eligible and willing candidates proposed for offices elected from the state at large.

(d) Before noon of the day following the open meeting, the Committee shall post on a bulletin board near the entrance to the hall in which the Annual Meeting is being held, its nominations for each office to be filled, and shall formally present the said nominations to the House at the time of the elections. Additional nominations may be made from the floor by submitting the nominations without discussion or comment. Vacancies occurring on the Nominating Committee by virtue of death, resignation or disability shall be filled by appointment of the Speaker.

Recommendations, Reference Committee No. 6

The committee next considered proposed Section of Chapter IV (Election of Officers and Delegates to the AMA) of the Bylaws regarding the Nominating Committee. The committee proposes that Section 2 be changed to read as follows, which is the recommendation from the Bylaws Committee:

"(a) During the meeting of the last regular session of the House of Delegates, the Speaker of the House of Delegates shall submit to members of the House of Delegates a list of ten names from which, by ballot, the House of Delegates shall select five members to serve as the Nominating Committee for the next year. The five names receiving the most votes shall form the Committee, and the person receiving the most votes shall be Chairman. In the event that the Chairman so elected is unable or unwilling to serve, or in the event of a tie, the Committee shall elect one of its members as Chairman.

(b) The Committee shall meet at such time and place as determined by the Committee Chairman or the Board of Trustees and shall schedule an open meeting immediately after the close of the first meeting of the House of Delegates at each Annual Meeting. This open meeting shall be held in the meeting place of the House of Delegates, shall receive broad publicity, and those who have business to discuss with the Committee shall have a hearing.

(c) The Nominating Committee shall verify the eligibility and willingness to serve of each candidate nominated. The Committee shall accept and post all eligible and willing candidates proposed for offices elected from the state at large.

(d) Before noon of the day following the open meeting, the Committee shall post on a bulletin board near the entrance to the hall in which the Annual Meeting is being held, its nominations for each office to be filled, and shall formally present the said nominations to the House at the time of the elections. Additional nominations may be made from the floor by submitting the nominations without discussion or comment. Vacancies occurring on the Nominating Committee by virtue of death, resignation or disability shall be filled by appointment of the Speaker."

Mr. Speaker, I move the adoption and implementation of this section of the report.

The motion was seconded from the floor.

The Chairman of the Board of Trustees, Ballard W. Cassady, M.D., was then recognized who reported the Board of Trustees had recommended the following editorial changes be made in sections (c) and (d) of the Reference Committee report:

(c) Insert the words "for information" between the words "post" and "all".

(d) Change the word "open" to "opening". Change the word "nominations" to "nomination" and add the words "or nominations" in two different lines.

The passage would then read as follows: "(c) *The Nominating Committee shall verify the eligibility and willingness to serve of each candidate nominated. The Committee shall accept and post for information all eligible and willing candidates proposed for offices elected from the state at large.*

(d) Before noon of the day following the opening meeting, the Committee shall post on a bulletin board near the entrance to the hall in which the Annual Meeting is being held, its nomination, or nominations, for each office to be filled, and shall formally present the said nomination, or nominations, to the House at the time of the elections . . ."

On a call for the vote, the House voted to accept the recommendations of the Reference Committee as amended per the suggestion of the Board of Trustees. Motion carried.

Recommendation

As the scope of the Association changes, so do the duties of the Executive Director. As a house-keeping change we feel that the duties of the Executive Director are more administrative rather than secretarial and the Bylaws should so state.

CHAPTER V, Duties of Officers other than Trustees and Alternates

Present Section 7: The Secretary shall advise the Executive Director in all secretarial matters of this Association and shall act as Corporate Secretary insofar as the execution of official documents or institution of official actions are required. He shall perform such duties as are placed on him by the Constitution and Bylaws.

Proposed Section 7: The Secretary shall advise the Executive Director in all *administrative* matters of this Association and shall act as a Corporate Secretary insofar as the execution of official documents or institutions of official actions are required. He shall perform such duties as are placed upon him by the Constitution and Bylaws, *and as may be prescribed by the Board of Trustees.*

Recommendation, Reference Committee No. 6

The committee then considered Chapter V, Section 7 and recommends that proposed Section 7 shall read as follows: "The Secretary shall advise the Executive Director in all *administrative* matters of this Association and shall act as a Corporate Secretary in so far as the execution of official documents or institutions of official actions are required. He shall perform such duties as are placed upon him by the Constitution and Bylaws, *and as may be prescribed by the Board of Trustees.*"

Mr. Speaker, I move the adoption and implementation of this section of the report.

(Motion was seconded and carried.)

Recommendation

In 1972, there was a considerable amount of controversy over the final report of the KMA Judicial Council. As a result an Ad Hoc Committee was formed to study the Judicial Council and its responsibilities. After detailed discussion of the Judicial Council a report was made to the KMA Board of Trustees which contained a number of suggestions which were approved by the Board. The Board members felt the Ad Hoc Committee had done an excellent job, had presented a proposal they felt would be acceptable to everyone and noted that it puts KMA Judicial Council procedures in concert with those of the AMA.

Specifically the recommendations were that the Bylaws be amended to 1) Spell out the appeal mechanism to the AMA Judicial Council and, 2) to state that the report of the Judicial Council may be accepted or rejected by the House of Delegates but may not be modified.

CHAPTER VII, Judicial Council

Present Section 5: Efforts toward conciliation and compromise shall precede the hearing of all disciplinary cases, but the decision of the Judicial Council shall be final.

Proposed Section 5: Efforts toward conciliation and compromises shall precede the hearing of all disciplinary cases, but the decision of the Judicial Council shall be final. *A party aggrieved by a decision of this Judicial Council may seek an appeal to the Judicial Council of the American Medical Association*

in accordance with the jurisdiction, rules and regulations of that Association.

Recommendations, Reference Committee No. 6

REPORT OF THE COMMITTEE TO STUDY THE CONSTITUTION AND BYLAWS, CHAPTER VII (JUDICIAL COUNCIL), SECTION 5 ONLY (#25)

The committee next considered Chapter VII (Judicial Council), Section 5 and proposed Section 5 to read as follows: "Efforts toward conciliation and compromise shall precede the hearing of all disciplinary cases, but the decision of the Judicial Council shall be final. *A party aggrieved by the decision of the Judicial Council may seek an appeal to the Judicial Council of the American Medical Association in accordance with the jurisdiction, rules and regulations of that Association.*"

Mr. Speaker, I move the adoption and implementation of this section of the report.

(Motion was seconded and carried.)

Present Section 10: The House of Delegates shall ratify or reject such interpretations of the Principles of Medical Ethics as the Judicial Council may propose. The Council shall actually report to the House of Delegates any rulings that have universal application, and the House shall have the power to modify the prospective effect of such rulings as the circumstances dictate.

Proposed Section 10: *No report or opinion of the Judicial Council shall be considered the policy of the Association until approved by the House of Delegates. Any report or opinion of the Judicial Council submitted to the House of Delegates may be accepted or rejected but not modified by the House of Delegates.*

Recommendations, Reference Committee No. 6

The committee next considered Chapter VII (Judicial Council), Section 10. Much discussion preceded the decision about proposed Section 10 but we have changed it to read as follows: "No report or opinion of the Judicial Council shall be considered the policy of the Association until approved by the House of Delegates. Any report or opinion of the Judicial Council submitted to the House of Delegates may be accepted or rejected or referred back to the Judicial Council but not modified by the House of Delegates."

Mr. Speaker, I move the adoption and implementation of this section of the report.

(Motion was seconded and carried.)

Recommendation

A few years ago the House of Delegates adopted a policy which allowed physicians who wished to become members of the Association who were in their first three years of practice to become a member at the reduced dues rate of \$80 per year. The intent of the recommendation which precipitated that Bylaws change was to make it easier for physicians who might be in the first three years of their medical practice for whom full dues might create a hardship. However, this has often been misinterpreted to mean that special consideration is to be given for physicians in the first three years of their practice in

Kentucky. Thus, a physician practicing for a number of years could move into the state and be allowed the reduced dues rate through misinterpretation of the Bylaws.

It is the opinion of the Executive Committee that the reduced rate creates more ill will than good, not to mention a number of administrative problems. The Executive Committee feels that in addition, a substantial number of physicians entering practice for the first time demand a fee comparable to other practitioners in their area regardless of the years of practice and thus should pay the same professional dues.

Another item of concern to the Executive Committee is that the current dues for certain membership categories are not enough to cover the expenses for the services provided to those membership categories. For that reason, your Executive Committee is recommending that the dues for Associate, In-Training, Inactive, and Student members be raised to an amount which would cover the cost of services provided.

The third item which your Executive Committee noted is the fact that the current Bylaws state that physicians becoming members after July 1 pay 1/2-year dues. There have been cases, which are becoming more numerous, where physicians have applied for membership after July 1, for example in September or October, and thus are asked to pay 1/2-year dues when, in fact, they are members for only one or two months of the Associational year before a new dues assessment is sent them. For this reason, it is felt it would be much better to pro-rate all dues on a calendar basis.

CHAPTER IX, Assessments and Expenditures

Present Section 1: The annual dues for membership in this Association shall be as follows: (1) Active Members \$130, except that the dues for new members entering practice for the first time shall be \$80 per year for the first three full years of practice; (2) Emeritus Members, no dues; (3) Associate Members, \$10; (4) In-Training Members, \$10; (5) Inactive Members, \$10; (6) Student Members; \$1; (7) Service Members, no dues; (8) Special Members, no dues. Dues fixed by these Bylaws shall constitute assessments against the component societies. Unless otherwise instructed by the Board of Trustees (which may institute centralized billing) the Secretary of each component society shall forward its assessments together with its properly classified roster of all officers and members, list of delegates, and list of non-affiliated physicians of the county to the Secretary of this Association as of the first day of January each year.

Proposed Section 1: The annual dues for membership in this Association shall be as follows: (1) Active Members \$130, *Delete (except that the dues for new members entering practice for the first time shall be \$80 per year for the first three full years of practice);* (2) Emeritus Members, no dues; (3) Associate Members, \$25, (4) In-Training Members, \$20, (5) Inactive Members, \$25, (6) Student Members, \$10, (7) Service Members, no dues; (8) Special Members, no dues. *The dues during the first year for*

any member shall be pro-rated on the basis of the date of his becoming a member. (The rest of the paragraph remains the same.)

Robert L. McClendon, M.D., Chairman

Recommendations, Reference Committee No. 6

The committee next considered Chapter IX (Assessments and Expenditures), Section 1 of the Bylaws. It was suggested that the proposed Section 1 be changed to read as follows: "The annual dues for membership in this Association shall be as follows: (1) Active Members, \$130; (2) Emeritus Members, no dues; (3) Associate Members, \$25; (4) In-training Members, \$20; (5) Inactive Members, \$25; (6) Student Members, \$10; (7) Service Members, no dues; (8) Special Members, no dues. *The dues during the first year for any active member shall be pro-rated on the basis of the date of his application.*"

Mr. Speaker, I move the adoption and implementation of this section of the report.

(Motion was seconded and carried.)

Report of the McDowell House Board of Managers

The Board of Managers of the McDowell House has continued to meet quarterly at the House with almost 100% attendance of the members, which speaks for their great interest in this magnificent historic landmark.

The physical maintenance of the House and its general condition are most satisfactory. Any changes that are being made, and these are constantly happening, are with the advice particularly of Mr. James Cogar, in order to maintain the proper historic relationship. The House has been kept open each day of the week for educational and publicity purposes.

The finances of the House are satisfactory and reasonably stable. It is hoped that sufficient endowment may be raised to assure the permanent status of this landmark without annual contributions.

The Little Garden Club of Danville was awarded the state's Certificate of Merit for Exceptional Achievement for the greatest contribution toward the gardening movement in the state. It was awarded for its wild flower gardens at the Ephraim McDowell House. *Antiques* magazine has referred to the House in two articles this year. The Speed Museum in Louisville will exhibit an instrument cabinet from the House said to be 154 years old.

Members of the Association are urged to visit the House. It is also available for small meetings as may be desirable.

Laman A. Gray, M.D., Chairman

Recommendations, Reference Committee No. 6

Reference Committee No. 6 next reviewed the Report of the McDowell House Board of Managers.

Mr. Speaker, I move the adoption of this section of the report.

(Motion was seconded and carried.)

Report of the KMA-KNA Joint Practice Committee

Except that Portion Dealing With Continuing Education

The Kentucky Medical Association-Kentucky Nurses Association Joint Practice Committee has been in existence for approximately a year and a half. No report was made to the House last year due to the fact that the Committee was appointed and met too late in the Associational year to formulate a report. However, we have kept the KMA Board of Trustees informed of our activities.

The first item of consideration of the Committee was to formulate and decide upon the purpose of the Committee as well as formulate objectives that we hope to obtain.

The purposes, as set up jointly, are to examine the roles and functions in medical and nursing practice in order to define new and altered patterns and to improve communication between medicine and nursing to enhance joint planning and action. The following objectives were also set forth.

1. To examine the authority, responsibility, and operation of each profession in terms of current and projected practice patterns.

2. To identify the important and interdependent roles and functions of medicine and nursing with particular attention to transitional areas as affected by changing practice patterns.

3. To identify the changes in medical and nursing practice needed to improve the quality and quantity of health care.

4. To examine how and to what extent medicine and nursing can change to meet health care needs.

5. To propose changes in educational patterns and the relationships that would enhance the new role functioning of nurses and physicians.

6. To take the lead in the promotion of changing patterns of improved health care by physicians, nurses, governmental and private agencies.

At our first meeting, we were very glad to have a representative from the AMA Committee on Nursing attend the meeting. This individual is also assigned to the AMA-ANA Joint Practice Committee and offered a number of suggestions for consideration by the Committee.

One of the items of discussion last year was legislation which had been drafted concerning the Kentucky Nurse Practice Act. Although our Committee is strictly advisory, considerable discussion of the proposed changes in the Nurse Practice Act was held. These proposed changes were generated by the Kentucky Nurses Association and were subsequently withdrawn by them at the direction of the KNA House of Delegates. We learned that the KNA has set up a committee to study the Nurse Practice Act and to get grass roots comments as to what the Nurse Practice Act should be.

Other items discussed by the Committee include the multidisciplinary concept of certifying allied health personnel and the role of and practice limitations of emerging health professions. The Committee agreed that practitioners in newly emerging fields are

needed but often are lacking in proper supervision. The interpretation of the duties of these individuals is based more and more on an interpretation of exactly what constitutes the practice of medicine and it is the feeling of the Joint Practice Committee that there will ultimately have to be a definitive ruling on exactly what constitutes the practice of medicine.

Based on the items discussed during the first two meetings, I definitely feel that the Joint Practice Committee is a worthwhile endeavor and should be continued. Such a committee gives both the nurse and the physician a forum to discuss concepts, trends and new developments while at the same time giving both professions insight into the problems and responsibilities of the other. The participation and attendance of the physician members of the Committee is to be commended.

W. Eugene Sloan, M.D., Chairman

Recommendations, Reference Committee No. 6

The next report considered was the Report of the KMA-KNA Joint Practice Committee, except the portion beginning with the last paragraph on page 38.2, dealing with continuing education. Doctor W. Eugene Sloan, the Chairman of the Committee, was present to present his report.

Mr. Speaker, I move the adoption of this section of the report.

(Motion was seconded and carried.)

Report of the Physician-Attorney Liaison Committee

This Committee is composed of three physicians appointed by KMA and three attorneys appointed by KBA with Co-Chairmen representing each association. The Committee serves as a liaison between the two professions relative to discussion of liability insurance, legislative and other matters of mutual concern. One of the primary purposes of the Committee is to serve as the referral body in problems that arise under the Interprofessional Code and work towards resolving complaints. Initially, the Committee had reviewed in detail the worthiness of screening panels and recommended that screening panels were not feasible in Kentucky at the present time.

The Committee members discussed the need for the improvement of official "medicolegal investigation of deaths," and recommended to the KMA and KBA that each organization take steps to encourage adequate funding for the Medical Examiner System in Kentucky with the suggestion that the \$100,000 annual grant be continued. Letters were written by the Presidents of each association, and we are pleased to report that the Governor's budget for the next biennium includes a sum of \$200,000 to continue present funding.

The Committee continued to study problems relating to liability insurance by reviewing the number of claims filed in Kentucky and securing a better definition of the terms used by insurance companies and the Insurance Services Office. The name of the Committee was changed during the Associational year from the "KMA-KBA Committee" to the "Physician-Attorney Liaison Committee."

I would like to express my personal appreciation to the Committee members representing both associations for their attendance, interest, participation and cooperation.

Thomas M. Marshall, M.D., Co-Chairman

Recommendations, Reference Committee No. 6

The Report of the Physician-Attorney Liaison Committee was considered next.

Mr. Speaker, I move the adoption of this section of the report.

(Motion was seconded and carried.)

Report of the Ad Hoc Committee to Study the External Structure of KMA

Doctor Lee Hess, in his President's Report to the House of Delegates last year, recommended the formation of an Ad Hoc Committee to study the External Structure of KMA.

Some concern was expressed by Doctor Hess in the geographical makeup of KMA Trustee Districts, and the recommendation that relationships and communication be improved between county societies and Trustees was made.

Since there are already some changes taking place in this area, our Committee has not had an official meeting, but I have had the privilege of discussing various aspects of our past President's thoughts with him and other knowledgeable individuals.

As medicine continues to be "pinned toward the corner," it is imperative that each Trustee challenge himself to find the most effective methods for the greatest communication between himself and the county societies in his District.

It seems indicated to me to use this report as a means of encouraging adjacent counties, especially smaller ones, to join together in multi-county societies. This in itself increases communications in relationships, while also offering the component societies the necessary "clout" to get jobs accomplished they could not otherwise do, and to have scientific sessions, a most essential plan as we approach more required continuing education. Caldwell, Christian, Muhlenberg, Todd, and Trigg counties joined together a couple of years ago to form the Pennyryle Medical Society. I think if you discuss this with the membership of this multi-county society, you will find them to be most pleased that they have made the change. (I am also pleased that in my own area, we have taken a similar step by combining Shelby, Henry, and Oldham counties.

Another aspect of making formation of multi-county societies easier is the fact that there will be centralized dues billing from the Headquarters Office effective with the collection of 1975 dues. This takes a big chore off the back of the county society secretary, and also eliminates the problem of a component county society secretary trying to collect dues from physicians in another county.

There are other areas that we must address ourselves to if we are going to do the best job in our

organizational structure. Some have felt our Trustee Districts should be redesigned; others have felt we should have less Districts, and a concerted effort has been made for studying the possibility of them being the same as the twenty Comprehensive Health Planning Districts in Kentucky. Considerations of this nature should be a continuing challenge, and I feel sure the Executive Committee and Board of Trustees will do all in their power to assure us of a strong organizational structure.

Our compliments and thanks are extended to our Officers, Trustees, and to all those who give so much of their time to make KMA an effective and strong organization. I know the entire membership joins in expressing our faith in our leadership and gratitude for their efforts.

Wyatt Norvell, M.D., Chairman

Recommendations, Reference Committee No. 6

Doctor Wyatt Norvell, the Chairman of the Ad Hoc Committee to Study the External Structure of KMA, was present and presented Report #40. As requested by the Board of Trustees, the committee feels and recommends that this committee be re-appointed with a specific request that they review and encourage the development of multi-county societies.

Mr. Speaker, I move the adoption and implementation of this section of the report.

(Motion was seconded and carried.)

Report of the President

TOPIC IIIb Dealing with The Election Process for President-Elect Only

I am told by members of our Association who have been around longer than I that the office of KMA President was originally a position of honor only—with little work and/or responsibility involved. A position of great honor it certainly remains, but in present day situations the office is also demanding and carries with it the necessity for appreciable work and responsibility, including, but certainly not limited to, public relations. It seems logical to me that we should elect the most qualified and capable physician available at the time regardless of which area of the state he may live in. If a particular physician is best qualified and capable, I personally feel he would represent me well regardless of where he happened to live and/or practice. Certainly, each president represents and works for all physicians of the state, not just those from his own geographical area. Therefore, I strongly recommend that the practice (though not written policy) of rotating the Presidency among east, central and west regions of the state be discontinued. With the many and varied problems facing medicine today (governmental and otherwise) we need presidents who have the time to devote to the office and presidents who can and will speak for organized medicine. Therefore, I strongly recommend that Physicians be allowed to express openly any willingness and/or desire they may have to serve as President without being disqualified or otherwise discouraged from seeking the office.

Topic IIIb (The Election Process for President-Elect), the Report of the President, has been considered under the Constitution and Bylaws Report and needs no further discussion at this time.

Mr. Speaker, I move the adoption of this section of the report.

(Motion was seconded and carried.)

Report of the President

Topic IV Dealing with the Office of Vice President Only

For similar reasons as given for the office of President, I strongly recommend that the practice of electing the Vice President from regions be discontinued. I further wish to express deep concern for what appears to be too little consideration for the election of Vice President. Although in the past we have enjoyed Vice Presidents who were quite capable, we must constantly be cognizant that in the event the President is unable to complete his term as President, the Vice President automatically becomes President. Therefore, it seems logical that a Vice Presidential candidate should have experience and a record of participation in organized medicine which would fully qualify him to serve as President if necessary. I strongly encourage careful consideration of qualifications for individuals submitted for the office of Vice President just as those submitted for the office of President.

Recommendations, Reference Committee No. 6

Topic IV (The Office of Vice President), Report of the President, has also been considered under the Bylaws review and needs no further action at this time.

Mr. Speaker, I move the adoption of this section of the report.

(Motion was seconded and carried.)

Report of the President

Topic V Dealing with Participation of Medical Students, Interns, and Residents in Organized Medicine Only

It has been my belief for some time that interns and residents and medical students should be encouraged to become actively involved in organized medicine. It seems to me that this segment of our profession could make a worthwhile contribution to organized medicine and hopefully we can make some contribution to them in return. It doesn't seem logical to me to expect physicians disinterested in organized medicine on the last day of their internship or residency to become immediately interested in organized medicine the following day—the first day of private practice. Therefore, I would very much like to see more involvement of this segment of medicine in the affairs of organized medicine. I have met this year on several occasions with the House staff both at the University of Louisville and the University of Kentucky and have met with officials of the metro-

politan county medical societies. A recommendation for developing mechanisms allowing participation of students, interns and residents has been submitted to our Board of Trustees and I am sure will be submitted for consideration by the House. I personally feel that interns and residents should have full, active membership with the right to vote, serve on committees and hold office if elected. Unless this mechanism is guaranteed in the Bylaws of metropolitan county societies, then I personally feel it is the duty and obligation of this House to provide a mechanism whereby interns and residents may have an active role in the affairs of this House with a vote. I was extremely pleased that one of our county societies has indicated the willingness to modify their Bylaws in a manner which would mandate the election of at least one member of the House staff as a delegate to KMA. We must realize that certainly not many, if any, physicians are likely to be elected as delegates to KMA until they have been members of their county society for three to four years or more. This then, would seem to automatically eliminate the probability of an intern and/or resident being elected a KMA delegate at the county level. Unless such mechanisms are available at the county level obviously active participation and the right to vote on matters of concern to this profession at the state level would not be available to this segment of our profession. Although I do not anticipate unusually large numbers of the House staff and/or student body becoming actively involved in the affairs of organized medicine, I personally feel it is our duty and responsibility to provide a mechanism for participation for those who do desire to participate.

Recommendations, Reference Committee No. 6

Topic V (Participation of Medical Students, Interns and Residents in Organized Medicine), Report of the President, was considered in two sections, one dealing with medical students and the other with interns and residents. Topic V, as concerns the medical students, has been considered under the Bylaws reviews and it was felt that there was no additional comment to be made at this time. Topic V, regarding interns and residents, it was felt by the committee, should be considered and we urge that this subject be presented to the Bylaws Committee for immediate action. We feel that the membership privileges extended to the students should be extended in like manner to include interns and residents.

Mr. Speaker, I move the adoption and implementation of this section of the report.

(Motion was seconded and carried.)

Report of the President

Topic VII Dealing with AMA, KMA and County Membership—Unified Membership Only

I have listened over the past few years to debates for and against unified membership in our profession. I have witnessed individual physicians who expressed a desire to belong only to county societies. I have witnessed those who have expressed a desire to belong only to state medical societies and there are

those who wish only to belong to AMA. I have thought long and hard on this particular matter and I frankly am unable to see where there is any logic whatsoever in belonging to either the county, state or national association without belonging to all. It is extremely disconcerting to me to find physicians who have been so inactive in organized medicine that they fail to have any comprehension whatsoever as to the vast amount of work and assistance that organized medicine gives to them on a daily basis as a practicing physician. It frankly does not seem quite fair to me for those of us who belong to all levels of organized medicine to "pay the tab" for administrative and other expenses and then have other physicians who do not belong, enjoy the same advantages of the accomplishments of organized medicine which we enjoy. I readily recognize that there are actions at all levels of organized medicine with which *all* members do not agree. This certainly is the case and always will be the case, but I do not believe this is justification for allowing a member to drop membership at will in one organization or the other and remain a member of still another level of organized medicine. I am also aware of many reports floating around about huge losses in state membership when various states have adopted a position of unified membership but these reports are not accurate. To the contrary, those states have experienced an increase in membership. I recognize that the proposal which I am about to make may not be a popular one. However, I feel I have again the responsibility to express to you my views based on the experiences and opportunities which I have had this past year and realizing that in unity there is strength and in disunity there is little. Therefore, I strongly recommend that the Kentucky Medical Association adopt a position of unified membership, requiring all physicians to belong to the county, state and American Medical Association.

Recommendations, Reference Committee No. 6

Topic VII (AMA, KMA and County Memberships—Unified Membership), Report of the President was next considered and debated and discussed at length. The committee feels that KMA should adopt a position of unified membership requiring physicians to belong to the county, state, and American Medical associations.

Mr. Speaker, I move the adoption and implementation of this section of the report.

At this point, a motion was heard from the floor that this section of the report be tabled. The motion was seconded and carried.

Resolution C

Hardin-Larue Counties Medical Society

RESOLVED, that each of the specialty societies represented on the KMA inter-specialty council be represented by one delegate and one alternate delegate to the KMA House of Delegates with all privileges thereof. The delegates and alternate delegates are to be designated by their representative society.

Recommendations, Reference Committee No. 6

The committee next considered Resolution C—Specialty Representation in the KMA House of Delegates, introduced by Hardin-Larue County Medical Society, and recommends that this resolution not be accepted.

Mr. Speaker, I move the adoption of this section of the report.

(Motion was seconded and carried.)

Resolution E

McCracken County Medical Society

WHEREAS, Chapter IV, Section 2 of the current Bylaws of the Kentucky Medical Association leaves the selection of the ten names from which, by ballot shall be selected, the five members of the Nominating Committee, who will nominate for the following years, members for the most important offices in KMA solely and without requirement of consultation, to the Speaker of the House of Delegates and,

WHEREAS, Chapter IV, Section 1 of same Bylaws places no limit on the number of terms said Speaker may serve and,

WHEREAS, there is no regional representation on the Nominating Committee required of the Speaker and,

WHEREAS, it is within the realm of possibility that the Speaker by selecting five well-known members of KMA and five little known members of KMA could, to an extent, control the membership of said Nominating Committee, thus eliminating true democratic selection of said committee and,

WHEREAS, the selections of the Nominating Committee have traditionally and historically been elected without challenge, since Chapter IV, Section 2 of these Bylaws, while allowing nominations from the floor, specify that such nominations must be presented without discussion or comment, which is again neither democratic nor in accordance with most accepted Rules of Parliamentary Procedure, including Sturgis, therefore be it

RESOLVED, that the present method as outlined in the KMA Bylaws of selecting the Nominating Committee, places too much responsibility in the hands of the Speaker of the House of Delegates and should be changed, and be it further

RESOLVED, that Chapter IV, Section 2 of said Bylaws be changed in the manner recommended as follows in order to make the selection of the Nominating Committee, and through it the selections of President-Elect, Vice President, Speaker and Vice Speaker of the House, Secretary of KMA and Delegates to AMA and their Alternates, a more democratic process—namely—Sentences 1, 2 and 3 of present Chapter, IV, Section 2 be replaced with the following five sentences:

1) During the last meeting of the regular session of the House of Delegates there will be submitted to the House of Delegates a list of names, selected as shall follow, from which by ballot printed, the House of Delegates shall select seven members to serve as the Nominating Committee for the next year.

2) The names submitted by ballot shall consist of two groups. The first group submitted by the Board of

Trustees and the second group submitted by the Trustee Districts of KMA.

3) The Board of Trustees shall submit a list of six names from which the House of Delegates shall elect two to serve as members of the Nominating Committee.

4) Each Trustee District shall submit one name from which the House of Delegates shall elect five to serve as members of the Nominating Committee. Each Trustee District should caucus after the first regular session of the House of Delegates as traditionally those Districts nominating Trustees and alternates currently are doing, to make these selections.

5) In the event an individual or individuals might be presented for nomination by both the Board and the Trustee Districts, those receiving the most votes in the individual category will be elected so as to preserve a two to five ratio between the Board and the Trustee Districts. The individual receiving the most votes will be declared Chairman of the Committee.

Also Sentence 7 of present Chapter IV, Section 2 of the Bylaws of KMA to be replaced by the following sentence:

7) Additional nominations may be made from the floor. The individual making such nomination, after recognition from the Speaker, will be allowed no more than five minutes to present the reasons for placing the name in nomination. Such nominations may be seconded on ruling by the Speaker, but there will be no discussion or comment by anyone seconding the nomination.

Recommendations, Reference Committee No. 6

The committee next considered Resolution E—Method of Selecting Nominating Committee, introduced by the McCracken County Medical Society. After much discussion, it was felt that perhaps some changes should be made in the selection of the Nominating Committee but that this resolution did not adequately convey the correct proposed changes. The committee recommends that this resolution not be accepted.

Mr. Speaker, I move the adoption of this section of the report.

(Motion was seconded and carried.)

Resolution I

Campbell-Kenton County Medical Society

RESOLVED, that the Secretary of the Kentucky Medical Association shall send a letter at this time, and yearly thereafter, to the statewide bar association and to each local bar association, saying as follows: "Please inform the members of your bar association, that the Kentucky Medical Association has instructed its legal department to receive and study in detail every malpractice suit brought to its attention by any member of the Kentucky Medical Association; with a view toward developing counter-suits against attorneys who have brought the malpractice suits."

Recommendations, Reference Committee No. 6

The committee next considered Resolution I—Malpractice Suits, introduced by the Campbell-Kenton County Medical Society. It recommends that this resolution not be accepted.

Mr. Speaker, I move the adoption of this section of the report.

(Motion was seconded and carried.)

Resolution P

Pennyryle Medical Society, Inc. and Lyon County Medical Society

WHEREAS, the Pennyryle Medical Society, Inc. was formed in 1969 under the auspices of the Kentucky Medical Association consisting of the counties of Caldwell, Christian, Muhlenberg, Todd, and Trigg for the purpose of forming a professional multi-county society over an area of rural western Kentucky, so as to improve scientific programs and to discuss mutual problems, and

WHEREAS, Lyon County adjoins Caldwell and Trigg counties and their problems are common to the five counties presently making up the Pennyryle Medical Society, and they share in common, membership in the: Pennyryle Area Development District, Pennyryle Comprehensive Health Planning District, and the Third Trustee District of the Kentucky Medical Association, and

WHEREAS, the physicians in Lyon County have indicated a desire to become members of the Pennyryle Medical Society, and

WHEREAS, their desires were discussed and approved by the Pennyryle Medical Society Executive Committee on May 21, 1974 and before the membership of the Pennyryle and Lyon County Medical Society, joining on July 6, 1974, now therefore be it

RESOLVED, the Pennyryle Medical Society, Inc. will in the future consist of the counties of Caldwell, Christian, Muhlenberg, Todd, Trigg and Lyon counties, and that by so joining the Lyon County physicians agree to abide by the Constitution and Bylaws of the Pennyryle Medical Society and may in turn receive and derive the benefits of the society, and be it further

RESOLVED, a copy of this resolution be forwarded to the KMA House of Delegates for their approval at the fall meeting of 1974.

Recommendations, Reference Committee No. 6

The committee next considered Resolution P, introduced by the Pennyryle Medical Society, Inc. regarding Lyon County joining the Pennyryle Medical Society. The committee accepts this resolution.

Mr. Speaker, I move the adoption and implementation of this section of the report.

(Motion was seconded and carried.)

Resolution S

Pennyryle Medical Society, Inc.

WHEREAS, in the current report of the Kentucky Medical Association Constitution and Bylaws Committee the recommendation has been made to do

away with the "so called" vague boundaries of the Commonwealth of Kentucky and elect officers from the state-at-large, and

WHEREAS, the state medical society should stand united and recognize that the American Medical Association delegates and alternate delegates represent the state-at-large rather than any specific region, and

WHEREAS, no Bylaw change is required for clarification of the concept that these delegates should be selected from the state-at-large rather than a specific region, now therefore be it

RESOLVED, that the 1974 House of Delegates affirms the concept that delegates and alternate delegates to the American Medical Association be selected from the state-at-large.

Recommendations, Reference Committee No. 6

The committee next considered Resolution S, introduced by the Pennyrile Medical Society, Inc. on the Clarification of the Selection of Delegates and Alternate Delegates to the American Medical Association. It was the feeling of the committee, after much discussion, that this resolution would be rejected; however, it was felt that the Board of Trustees of KMA needs to immediately outline the three distinct geographical areas of the state from which the AMA Delegates and Alternate Delegates are selected.

Mr. Speaker, I move the adoption and implementation of this section of the report.

(Motion was seconded and carried.)

Recommendations, Reference Committee No. 6

Mr. Speaker, I move the adoption of the Report of Reference Committee No. 6 as a whole as amended.

(Motion was seconded and carried.)

Recommendations, Reference Committee No. 6

Mr. Speaker, I would like to thank the members of Reference Committee No. 6, Doctors C. Nicholas Kavanaugh, Wyatt Norvell, Garner E. Robinson, and David L. Stewart. I would also like to thank Mr. Carl Wedekind for this assistance and Doctor Ben Crowder, Doctor David Hull, Doctor Eugene Sloan, and the other chairmen of the various committees who attended the meeting and lead in the discussion. A sincere appreciation goes to our secretary who has worked diligently to get this report typed.

REFERENCE COMMITTEE NO. 6

Wally O. Montgomery, M.D., Paducah, Chairman
C. Nicholas Kavanaugh, M.D., Lexington
Wyatt Norvell, M.D., New Castle
Garner E. Robinson, M.D., Ashland
David L. Stewart, M.D., Louisville

Unfinished Business

Doctor Greathouse recognized Ballard W. Cassady, M.D., Pikeville, Chairman of the Board of Trustees, for the final report of the Board. Doctor Cassady moved, on behalf of the Board of Trustees, that the name of J.

Campbell Cantrill, M.D., Georgetown, be placed in nomination for re-election to a full four-year term on the KMA Judicial Council. The motion was seconded from the floor and carried.

Doctor Scheen then introduced the following Resolution and moved it be adopted by the House of Delegates. The motion was seconded and carried.

WHEREAS, Richard F. Greathouse, M.D., Louisville, has served the Kentucky Medical Association with dignity, high purpose, and dedication, and

WHEREAS, due to great demands made upon him by many other pressing duties, he has deemed it necessary and advisable to relinquish his position as Speaker of the House of Delegates of KMA, and

WHEREAS, in his years of service as Speaker of the House of Delegates he has conducted the deliberations of this House with high purpose and a goal of providing the best leadership he could possibly provide, now therefore, be it

RESOLVED, that the House of Delegates of the Kentucky Medical Association, meeting in regular session on September 25, 1974, does hereby laud the many accomplishments of Doctor Greathouse, does further offer its sincere thanks and deep appreciation for his untiring service to this Association, his profession, and this Commonwealth, and be it further

RESOLVED, that by inclusion of this resolution in the records of the deliberations of this House of Delegates, they do make it known that his peers hold him in high regard for his service and dedication to the Kentucky Medical Association, and be it further

RESOLVED, that the House of Delegates of the Kentucky Medical Association does unanimously acclaim the accomplishment of Richard F. Greathouse, MD., and wish him Godspeed in all that he endeavors in the years to come.

Election of Officers

Wyatt Norvell, M.D., New Castle, Chairman of the KMA Nominating Committee, then proceeded to the podium to give the report of the Nominating Committee. He read the following list of nominations for the positions noted:

President-Elect (Eastern)	David A. Hull, M.D. Lexington
Vice President (Central)	Laszlo Makk, M.D. Louisville
Speaker, House of Delegates	Carl Cooper, Jr., M.D. Bedford
Vice Speaker, House of Delegates	Richard B. McElvein, M.D. Lexington

- AMA Delegates (2)

J. Thomas Giannini, M.D.
Louisville
Fred C. Rainey, M.D.
Elizabethtown
(elected to fill vacancy
created by resignation of
John C. Quertermous,
M.D.)
- AMA Alternate Delegate Charles G. Bryant, M.D.
Louisville

No additional nominations were received from the floor; therefore, it was moved and seconded that the nominees be elected. Motion carried.

Doctor Hull was then escorted to the podium and received a standing ovation.

Doctor Norvell then submitted the following nominations for the office of trustee and alternate trustee on behalf of the district nominating committees:

- First District

W. Eugene Sloan, M.D.
Paducah
- Alternate

Keith E. Ellis, M.D.
Benton
- Third District

Frank R. Pitzer, M.D.
Hopkinsville
- Alternate

Henry R. Bell, M.D.
Elkton
- Fourth District

Charles B. Spalding, M.D.
Bardstown
- Alternate

Terrell D. Mays, M.D.
Elizabethtown
- Eighth District

Richard J. Menke, M.D. (elected
to fill the unexpired term of
Carl J. Brueggemann, M.D.,
who resigned)
Covington
- Tenth District

James B. Holloway, M.D. (elected
to fill unexpired term of David
B. Hull, M.D. who was
elevated to the office of President-Elect)
Lexington
- Alternate

Richard F. Hench, M.D. (elected
to fill unexpired term of Irving
Kanner, M.D. Deceased)
Lexington
- Twelfth District

William T. Watkins, M.D.
Somerset
- Alternate

John M. Baird, M.D.
Danville
- Fourteenth District

Jerry D. Fraim, M.D.
Paintsville
- Alternate

Harvey A. Page, M.D.
Pikeville

It was moved and seconded that the above slate of nominees be elected. Motion carried.

Nominations for
Kentucky Physicians Mutual, Inc.
Board of Directors

The following list of nominees for the Board of Directors, Kentucky Physicians, Mutual, Inc., was submitted and received for information only:

- Peter P. Bosomworth, M.D., Lexington
Delmas M. Clardy, M.D., Hopkinsville
Guy C. Cunningham, M.D., Ashland
Keith P. Smith, M.D., Corbin
John C. Quertermous, M.D., Murray
Ballard W. Cassady, M.D., Pikeville
Walter I. Hume, Jr., M.D., Louisville
William P. Vonderhaar, M.D., Louisville
Roy H. Moore, III, M.D., Louisville
Norman Glaser, M.D., Louisville
Carroll H. Robie, M.D., Louisville
John S. Llewellyn, M.D., Louisville

Election of 1975 Nominating Committee

The following physicians were elected by the House of Delegates to serve as the Nominating Committee for the 1975 Annual Meeting:

- John M. Baird, M.D., Danville, Chairman
Keith M. Coverdale, M.D., Bowling Green
A. B. Richards, M.D., Louisa
James C. Salato, M.D., Columbia
James C. Seabury, M.D., Paducah

At this time, Doctor Greathouse called on Doctor Gardner for a few brief remarks as the new President of KMA.

It was announced the Board of Trustees would hold its reorganizational meeting on Thursday at noon in the Magnolia Room of the Ramada Inn. All newly elected Board members were urged to attend.

Doctor Greathouse adjourned the second session of the 1974 KMA House of Delegates at 10:50 p.m., and thanked the members for their participation.

« « « « « « « « « « « « « « « «

KMA CONSTITUTION AND
BYLAWS
and
COMMITTEES, 1974-75
in the
January Issue
of
The Journal of KMA

THE JOURNAL of the KENTUCKY MEDICAL ASSOCIATION

Index to Volume 72—1974

January .....Pages 1 to 54	July .....Pages 363 to 398
February .....Pages 55 to 112	August .....Pages 399 to 460
March .....Pages 113 to 174	September .....Pages 461 to 520
April .....Pages 175 to 248	October .....Pages 521 to 570
May .....Pages 249 to 306	November .....Pages 571 to 640
June .....Pages 307 to 362	December .....Pages 641 to 762

Edited by Walter I. Hume, Jr., M.D.

Under the Supervision of the Board of Trustees

SCIENTIFIC ARTICLES

A

Abdominal Aortic Aneurysms, Survival After Operation For, 595
Abruptio Placenta, 29
Ampicillin-Resistant *Hemophilus Influenzae*: Complacency Ends, 655

B

Biliary Tract Stones, Non-Operative Removal of Retained, 374
Brachial Artery, Drill Bit Injury of the, 551

C

Colon, Arterio-Venous Malformation of, 488
Crohn's Disease of the Stomach, Ileum and Colon, 322

E

Emergency Medical Care—The Physician's Responsibility, 269

F

Fiberoptic Colonoscope, Use of the Flexible, 193

H

Hand Surgery, Postoperative Instructions For, 32
Hepatitis Presenting With Urticaria, Viral, 73
Hyperlipoproteinemias, The Primary, 658
Hypertension in a Young Adult, Diagnosis of Renovascular, 25
Hypertensive Intracranial Hemorrhage, 132

I

Idiopathic Hypertrophic Subaortic Stenosis in Older Patients, Recognition and Management of, 201

L

Leukemia, Diagnosis and Management of Chronic Lymphocytic, 325
Lymphocutaneous Sporotrichosis in Childhood, 486

N

Neurotoxic Reactions to Local Anesthetic Drugs, 543

O

Occupational Bladder Cancer, 135

P

Pararenal Pseudocysts as a Result of Pelvic Surgery, 129
Parenteral Iron Therapy, Specific Indications For—Experience With One Hundred Patients Using Intravenous Iron Dextran, 604
Pedunculated Lymphangioma of the Cecum, 276
Pyoderma Gangrenosum with Myelofibrosis, 548

R

Respiratory Distress Syndrome Treated With Exchange Transfusion, 413
Rheumatic Fever Presenting as an Acute Abdomen, 75

S

Scabies, Diagnosis and Treatment of, 205
Seizures in Patients Over the Age of 40: A General Hospital Study, 371
Sex, The Psychological Trauma of or Lack Thereof, 77
Sexual Problems and Their Management, Common, 273

T

Tornado—3 April 1974, 319
Transient Pulmonary Infiltrates Following Acute Myocardial Infarction, 409

V

Vinyl Chloride and Angiosarcoma, 483

W

Wegner's Granulomatosis, 600

AUTHORS OF SCIENTIFIC ARTICLES

A

Adams, Garrett, 655
Aldrete, J. Antonio, 543
Arena, Paul J., 132

B

Babey, Joseph, 486
Bautista, Warlito, 73
Bensman, Irvin, 129
Block, J. Bradford, 483
Bowers, William, Jr., 322
Bybee, David, 658

C

Cloutier, Raymond P., 73
Cole, Walter, 319

D

DeSimone, Philip, 325
Dhanjal, Surjeet Singh, 486
Durnin, Robert E., 488

E

Ernst, Calvin B., 25

F

Flanigan, Timothy, 73
Fosson, Abe R., 29

G

Goodin, Robert, 201
Gopinath, D. K., 548
Griffen, Ward, Jr., 193

H

Hagihara, Patrick, 193, 488
Hamilton, Ronald, 658
Harbrecht, Phillip H., 595
Harrison, Christopher, 75
Hendrick, David R., 276
Hernandez, Gustavo E., 488
Hodge, Steven, 205

I

Ignacio, O. J., 371

K

Kale, Ashok, 486
Kasdan, Morton, 32
Kim, Song, 322
Kleinert, Harold, 32
Kotchen, Theodore A., 25

L

Long, Robert C., 273

M

Mann, Nirmal, 73
Masden, Ronald, 201
McKee, Willis P., Jr., 551
McMartin, Daniel, 201
Mosely, Linda Hays, 595
Mostowycz, Leonidas, 276
Murrow, J. Thomas, 132

N

Naser, Ronald, Jr., 319

O

Owen, Lafayette, 205

P

Polk, Hiram C., Jr., 595
Preston, David, 25

R

Roeske, Nancy C. A., 77

S

Sabharwal, K., 548
Schnitzker, William F., 413
Schroer, James A., 409
Schupbach, Harold J., 129, 600
Seifer, Fred, 371

T

Tepper, Lloyd B., 135
Timmerman, Raymond J., 409

V

Vazquez, Martha D., 276

W

Walstad, Paul M., 322
West, Wilk O., 604
Whelan, Joseph, Jr., 374
Wickstrom, Jack K., 269
Wolfe, R. D., 548

MEDICAL PROGRESS ARTICLES

Arterial Blood Gases, 609
Atherosclerosis, Childhood and the Prevention of, 491
Hirsute Female, 663
Prophylaxis of Infection Following Operative Procedures, 139

MEDICAL PROGRESS AUTHORS

Cottrill, Carol M., 491
Dzur, James R., 663
Hamilton, Ronald D., 663
Polk, Hiram C., Jr., 139
Powell, Robert W., 609

GRAND ROUNDS ARTICLES

Acute Bacterial Diarrhea, 667
Acute Pancreatitis—A Continuing Dilemma, 616
Acute Salicylate Intoxication—Pathogenesis of Acid-Base Disturbances and Management, 552
Cleft Lip and Palate, 144
Endocrine Manifestations of Lung Tumors, 208
Facial Trauma—Initial Evaluation and Management, 385
Intraperitoneal Infection and Emergency Operation in Patients on Long-Term Corticosteroid Therapy, 280
Renal Failure Following Methoxyflurane Anesthesia, Post-operative, 82
Rheumatoid Arthritis with Crico-Arytenoiditis, A Case of, 416
Sideroblastic Anemias, 329

GRAND ROUNDS AUTHORS

Anderson, James, 208
Andrews, Billy, 33
Arora, K. K., 552
Bizot, William, 280
Bryant, W. Michael, 144, 385
Dowden, W. L., 144, 616
Fallazadeh, Hossein, 33
Gianella, R. A., 667
Hollingsworth, J. W., 416
Kinnaird, David, 280
Lee, Han, 385
Liu, Yong, 329
Martin, Denis, 82
Martin, D. G., 552
Maull, Kimball I., 616
Nagar, D., 82
Oldfather, Timothy, 280
Polk, Hiram C., Jr., 280
Schacht, Richard A., 82, 552
Schoo, Bernard, 33
Sridharan, M. K., 552

SPECIAL ARTICLES

A

Abortion Guidelines and Resolution, KMA, 35
And Who Shall Measure? 339

B

Blue Cross and Blue Shield—Involved, 494

C

Coronary Heart Attack, Public Education Program on the
Early Warnings Signs of, 85

E

Economic Consideration of Portal-Systemic Anastomoses, 338
Economic Factors Contribute to Medical Therapeutic Decisions, Should?, 334

H

Health Care Delivery, Some Approaches To: A Large County Society Approach, 87
Health Services of the Ukraine, 283

K

Kentucky MECO '74, 154

P

Private Practice, The Success of, 212
PSRO Position Paper, KMA, 148

R

Request of the Board of Medical Licensure, 531

S

State Licensure For Health Maintenance Organizations, 555

U

University of Kentucky SAMA Summer Program in Health Careers, 215

AUTHORS OF SPECIAL ARTICLES

A

Aaron, Phil, 154
Asman, Henry B., 494

B

Ballard, Dewey, 215
Brewer, McHenry S., 87
Brockman, George F., 283, 555

C

Caudill, W. Neville, 212

J

James, Tom, 215

K

Knapp, R. W., 339

M

Mays, E. Truman, 334
McElwain, William P., 531
McWhorter, Howard B., 85
Middleton, James, 336

P

Polk, Hiram C., Jr., 334

R

Radmacher, B. Frank, 494
Rollings, R. Parnell, 494

W

Wolff, John, Jr., 215

EDITORIALS

ADR, 579
Beckon to the Beacons, 498
Christmas, 676
Cogito (et Amo)—Ergo Sum, 529
Drug Advertisement, 219
Fixing Periods, 344
Gastrointestinal Endoscopy, 37
Health Planning, 155
"KMA Week" Is Near, 419
Priorities, 344
PSRO, 89
Reflection on Colonoscopy, 286
Rural Kentucky Medical Scholarship Fund, 90
T A P, 388
Z-D-T '76, 498

AUTHORS OF EDITORIALS

Asman, Henry B., 89, 419
Cox, Robert G., 90
Hume, Walter I., Jr., 155, 344, 498, 529
Knutson, Carl O., 286
Overstreet, A. Evan, 37, 219, 579
Rumage, William, Jr., 498
Schrodt, G. Randolph, 676
Smith, Charles C., Jr., 344
Sparrow, A. Bert, 38
Varga, Donald T., 388

SPECIAL FEATURES

Deceased Kentucky Physicians, 1974, 675
Digest of Proceedings, 1974 House of Delegates, 680
Digest of Board of Trustees Minutes, December 13, 1973, 91
Digest of Board of Trustees Minutes, April 11, 1974, 348
KMA Annual Meeting Section, 425
KMA Organizational Structure Chart, 18
1974 Scientific Exhibit Application, 232

ORGANIZATION SECTION

A

AMA Accredits CME Courses Offered By U of L, 448
AMA House Hears Dr. Roth, Awards Dr. Bowen, 41
AMA Lists 107 Kentucky Recipients For Physician's Recognition Award, 289
American College of Surgeons To Offer SESAP II, 508
Annual Meeting Roll Call, 634
Auxiliary Installs Mrs. McElvein, Elects Mrs. Montgomery, 631

C

Cancer in Women Meeting Set For May 31-June 1, 162
Continuing Education Programs On TV To Be Listed, 566

D

Dr. Gardner Elected to Serve on AMA Board of Trustees, 447
Drs. Hull, Makk Elected To Top KMA Offices, 631
Drs. Parks, Maxwell Assume Leadership of KMA Board, 631
Drs. Parrott, Gardner Elected at AMA Annual Convention, 447
Dr. Van Meter, Hasty Riddle Honored By KMA, 632

E

Emergency Care Seminar Features Rescue Demonstration, Annual, 391
Emergency Care Seminar Gets More CME Approval, 296
Emergency Health Care Seminar Approved for CME Credit, 220

F

Fine Words From Fine People—Guests Praise Annual Meeting, 632

H

Health Care Important Issue in 93rd Congress, 91
HEW Withdraws Regulations Due to AMA Opposition, 161

K

KAFP Officers Elected, July Seminar Planned, 390
KEMPAC Presented Two Awards at AMPAC Workshop, 225
KEMPAC Re-Elects Dr. Cooper, Announces 1973-74 Board, 40
Kentucky Licensure Board Submits First Annual Report, 40
Kentucky Physicians Appointed to AMA Councils, Committees, 92
1974 KMA Annual Meeting Is At Hand, 504
KMA Annual Meeting to Feature Outstanding Speakers, Informative Topics, September 24-26, 1974, 345
KMA Annual Meeting, Guest Speakers to Provide Outstanding Scientific Program at 1974, September 24-26, 288
KMA Annual Meeting, September 24-26 in Louisville, Receives Accreditation for Outstanding Scientific Program, 389
KMA Annual Meeting, 1974 Scientific Program Outline Released for Annual Meeting, 389
KMA Awards, Nominations Being Accepted For, 161
KMA Awards Has July 15 Deadline, Nominations For, 345
KMA Executive Director Named to PCMA Board of Directors, 92
KMA Increases Washington Input on Recent Federal Proposals, 161
KMA To Co-Sponsor National Conference on Mental Health, 41
KMA Physicians Host Dinner For Kentucky Congressmen, 346
KMA Provides Placement Service to Physicians, Communities, 451
KMA Public Relations Committee Seeks Physician Volunteers, 346

KMA Public Relations Committee Seeks Physician Volunteers, 289
Kentucky Peer Review Organization Holds Organizational Meeting, 390
Kentucky Senate and House Rosters Listed for 1974 Assembly, 44

L

Lexington Clinic Meeting, Pulmonary Diseases Is Topic For, 162

M

Membership Dues to be Billed from KMA Headquarters Office, 504
Miscellaneous Meetings Planned During KMA Annual Session, 505

N

Neuro-ophthalmology Course Sponsored By UKMC, 508
1975 Nominating Committee Chosen By Delegates, 632

P

Physician-Population Ratio of Kentucky Counties Noted for 1973, 97
Preschool Immunization Campaign Urged Nationwide, 635
President's Luncheon to Feature Lt. Governor Julian Carroll, 390
PSRO Area, Kentucky Named As, 91
Public Relations Meeting Set For Office Assistant, 225

R

Rheumatic Diseases Symposium to be Held May 9, 162
RKMSF Accepts Applications, Increases Loan Amounts, 161

S

Summary Of Delegates' Actions On Reports And Resolutions For 1974 KMA Annual Meeting, 633

T

Trustees Districts Hold Annual Meetings for 1974, Five, 257
Trustee Districts Hold Meetings During June, Two, 346

U

UL Plans "Alumni Weekend" for September 21-22, 447
1974 U.S. Senate Candidates To Speak at KEMPAC Meeting, 504

X

X-Ray Standards, Regional Workshops Being Held on, 287

SUPPORT OUR ADVERTISERS

When you see an advertisement in The Journal of the Kentucky Medical Association which you feel does a service to you, the physician, and to the medical profession, it would be helpful to all concerned if you would take a few minutes from your day to send a note of appreciation to the advertiser.

COUGH



When a cough spoils your patient's day...

Triaminic® Expectorant

Each teaspoonful (5 ml.) contains:

Triaminic, 25 mg. (phenylpropanolamine hydrochloride, 12.5 mg.; pheniramine maleate, 6.25 mg.; pyrilamine maleate, 6.25 mg.); glyceryl guaiacolate, 100 mg.; alcohol, 5%.

Triaminic® Expectorant with Codeine®

Each teaspoonful (5 ml.) contains:

Codeine phosphate, 10 mg. (Warning: May be habit forming); Triaminic, 25 mg. (phenylpropanolamine hydrochloride, 12.5 mg.; pheniramine maleate, 6.25 mg.; pyrilamine maleate, 6.25 mg.); glyceryl guaiacolate, 100 mg.; alcohol, 5%.

Triaminic Expectorant with Codeine is a Schedule V controlled substance.

The Adult Expectorants that are great for kids, too

The Bactrim^{T.M.} edge

Each tablet contains 80 mg trimethoprim and 400 mg sulfamethoxazole.

A high assurance of clinical efficacy

- in cystitis, pyelonephritis and pyelitis diagnosed as chronic
- against susceptible strains of the common urinary tract pathogens, usually *E. coli*, *Klebsiella-Enterobacter*, *Proteus mirabilis*, and, less frequently, indole-positive proteus species.



Before prescribing, please consult complete product information, a summary of which follows:

Indications: Chronic urinary tract infections (primarily pyelonephritis, pyelitis and cystitis) due to susceptible organisms (usually *E. coli*, *Klebsiella-Enterobacter*, *Proteus mirabilis*, and, less frequently, indole-positive proteus species).

Note: The increasing frequency of resistant organisms limits the usefulness of antibacterials, especially in chronic and recurrent urinary tract infections.

Contraindications: Hypersensitivity to trimethoprim/sulfonamides; pregnancy; nursing mothers.

Warnings: Deaths from hypersensitivity reactions, granulocytosis, aplastic anemia and other blood dyscrasias have been associated with sulfonamides. Experience with trimethoprim is much more limited but occasional interference with hematopoiesis has been reported as well as an increased incidence of thrombocytopenia in elderly patients on diuretics, primarily furosemides. Sore throat, fever, pallor or jaundice may be early signs of serious blood disorders. Frequent CBC's are recommended; therapy should be discontinued if a significantly reduced count of any formed blood element is noted. Data are insufficient to recommend use in infants and children under 12.

Precautions: Use cautiously in patients with impaired renal or hepatic function, possible folate deficiency, asthma or bronchial asthma; and in those with glucose-6-phosphate dehydrogenase deficiency, where hemolysis may occur. During therapy, maintain adequate fluid intake and perform frequent urinalyses, with careful microscopic examination, and renal function tests, particularly where there is impaired renal function.

Adverse Reactions: All major reactions to sulfonamides and trimethoprim are included, even if not reported with Bactrim. *Blood dyscrasias:* Agranulocytosis, aplastic anemia, megaloblastic anemia, thrombocytopenia, leukopenia, hemolytic anemia, purpura, prothrombinemia and methemoglobinemia. *Allergic reactions:* Erythema multiforme, Stevens-Johnson syndrome, generalized skin eruptions, epidermal necrolysis, urticaria, serum sickness, pruritus,

exfoliative dermatitis, anaphylactoid reactions, periorbital edema, conjunctival and scleral injection, photosensitization, arthralgia and allergic myocarditis. *Gastrointestinal reactions:* Glossitis, stomatitis, nausea, emesis, abdominal pains, hepatitis, diarrhea and pancreatitis. *CNS reactions:* Headache, peripheral neuritis, mental depression, convulsions, ataxia, hallucinations, tinnitus, vertigo, insomnia, apathy, fatigue, muscle weakness and nervousness. *Miscellaneous reactions:* Drug fever, chills, toxic nephrosis with oliguria and anuria, periarteritis nodosa and L.E. phenomenon. Due to certain chemical similarities to some goitrogens, diuretics (acetazolamide, thiazides) and oral hypoglycemic agents, sulfonamides have caused rare instances of goiter production, diuresis and hypoglycemia in patients; cross-sensitivity with these agents may exist. In rats, long-term therapy with sulfonamides has produced thyroid malignancies.

Dosage: Not recommended for children under 12.

Usual adult dosage: Two tablets b.i.d. for 10 to 14 days. For patients with renal impairment:

Creatinine Clearance (ml/min)	Recommended Dosage Regimen
Above 30	Usual standard regimen
15-30	2 tablets every 24 hours
Below 15	Use not recommended

Supplied: Tablets, each containing 80 mg trimethoprim and 400 mg sulfamethoxazole—bottles of 100 and 500; Tel-E-Dose® packages of 1000; Prescription Paks of 40, available singly and in trays of 10.



Roche Laboratories
Division of Hoffmann-La Roche Inc.
Nutley, New Jersey 07110

Bactrim^{T.M.}

Each tablet contains 80 mg trimethoprim and 400 mg sulfamethoxazole.



A high assurance of antibacterial activity
in cystitis, pyelonephritis and pyelitis diagnosed
as chronic and due to susceptible organisms.

Before prescribing, please consult complete product information,
a summary of which appears on preceding page.

LIBRARY OF THE
COLLEGE OF PHYSICIANS
OF PHILADELPHIA

This Book is due on the last date stamped below. No further preliminary notice will be sent. Requests for renewals must be made on or before the date of expiration.

DUE	DUE

A fine of twenty-five cents will be charged for each week or fraction of a week the book is retained without the Library's authorization.

